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State of South Carolina
Department of Education

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HIGH SCHOOL MANUAL

Revised and Rewritten

By W. H. HAND

**Professor of Secondary Education
in the University of South
Carolina and
High School Inspector**



ISSUED BY
J. E. SWEARINGEN
State Superintendent of Education





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High School Manual for Teachers

Revised and Rewritten

By WILLIAM H. HAND

Professor of Secondary Education
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INTRODUCTION

In 1911 I was instructed by the State Board of Education to prepare a High School Manual for the teachers of the State. It was kindly received by the high school teachers of the State, and several hundred copies were asked for by teachers and school officers outside the State. The supply was exhausted nearly two years ago. The State Board authorized the Manual to be revised and rewritten. The purpose, the plan, and the size of the first edition have been kept in mind in the preparation of the second edition. Some of the material of the former edition has been retained without change. Only a few of the best books for teachers have been recommended. Every teacher should have a few books bearing directly upon the teaching of the subjects he teaches, but I have found that many teachers neither own nor read such books. The unvarnished fact is, the average high school teacher does not remain in the work long enough to impel him to buy books on teaching. If teachers read more books on the teaching of their chosen subjects, many of the suggestions offered in this Manual would have been omitted.

The cooperation, the suggestions, and the fellowship of the high school principals and teachers throughout the State have made my own work one of pleasure. Some of my strongest convictions are largely due to the experience and the counsel of my fellow-workers. I take this opportunity to express my gratitude to them all.

W. H. HAND.

THE HIGH SCHOOL AS AN INSTITUTION

"The secondary school has been established longer, in its procedure, organization, curriculum, and method, than either elementary school or university."—*Monroe*.

"The past twenty years have seen an unparalleled growth in the interest in secondary education.....Attendance in secondary schools has been growing more than four times as fast as the population. This rapid increase in attendance is a marked testimonial to our belief in secondary education."—*Stout*.

"The secondary school was originally designed for the children of the richer and more cultured families in the community.There are but few parents now who do not have the ambition and the ability to give their brightest children one or more years of high school education."—*Snedden*.

"The changes which ought to be made immediately in the programs of American secondary schools, in order to correct the glaring deficiencies of the present programs, are chiefly the introduction of more hand, ear, and eye work."—*Eliot*.

"The high school is a democratic institution where democracy is practiced and nurtured for the elevation and strengthening of the larger democracy of which the high school is an integral part."—*Pearson*.

The secondary school is perhaps the most important link in our American educational system. It is at once the inspiration of the elementary school, the support of all institutions above it, and the chief agency in the preparation of the masses of the people for intelligent citizenship, industrial efficiency, and social enjoyment. The elementary school has neither the time nor the opportunity to teach more than the mere tools of an education, and three-fourths of its pupils never get beyond it. Of those who enter the high school barely 15 per cent. ever reach college. That is to say, the college touches fewer than 4 per cent. of American citizens, exclusive of those who never go to school and are generally illiterate. The opportunities of the high school are almost boundless; its responsibility has not yet been appraised.

In one of the quotations above, Mr. Snedden has pointed out that the high school originally existed for the children of a

particular class of people comparatively small in number, but it now draws its patronage from practically all classes of people. It is easy to understand how the high school came to be looked upon as a college preparatory school. As late as 1893, when the somewhat famous Report of the Committee of Ten was made, perhaps a majority of the people were willing to accept the declaration that what was a good preparation for college was a good preparation for life. Later the accuracy and sufficiency of that declaration have been challenged. College requirements and college courses have been subjected to tests which have resulted in radical changes and readjustments in both. Therefore, the high school has come to be regarded in a new light. Few thoughtful people seriously hold that the high school is primarily a college preparatory school. Most college presidents and college professors now openly assert that the public high school is only incidentally a college preparatory school. Broadly speaking, there is but one type of college whose attitude toward the function of the high school remains unchanged. The small college of very limited resources, small faculty, and unable to maintain more than one or two courses, finds it difficult to readjust itself to the modern notion of a high school. It has so long been accustomed to having its pupils pursue courses in the high school leading directly to its freshman class, that it shrinks from the idea of considering any readjustment of its own course or courses.

Strange as it may seem, teachers below college grade were among or are among, the last to admit that the high school is not primarily a college preparatory school. And stranger still, the most belated teachers to accept the modern notion are those teaching in very small high schools and in country schools in no real sense high schools. In these two classes of schools it is no uncommon thing to find teachers subordinating everything else to the preparation of one or two pupils for some particular college. They seem to think that their reputation, if not their destiny, depends on how well they can prepare an insignificantly few pupils for some college. Usually the alumni, or the alumnae, of the small college of the type above mentioned are most given to turning their chief attention to fitting a handful of boys or girls for college, regardless of the interests of their other pupils.

A high school principal should never forget, nor should he permit his teachers to forget, that the public high school is supported by the taxes of all the people, that the children of all the people attend the school, and that there should be no distinctions as to opportunities. If any pupil merits special consideration and attention, it is the one unable to get to any college. The high school is the end of his preparation. His preparation should be the very best that the school can offer.

As between what subjects are most needed by the majority of pupils in a given high school, and what subjects would best fit a few pupils for college entrance, a clear-headed principal would never hesitate. Even the college entrance examinations should be put out of mind in the high school teaching. These set examinations have often been hurtful to the best interests of the high schools and their pupils. They tend decidedly to crystallize the work of the high schools. Some high school teachers study these stereotyped questions, and bend every energy toward preparing their pupils to stand them. The great majority of these questions are tests of memory, or of information, rather than tests of power to think and to exercise judgment. It would seem that even the college often defeats its own purpose in these examinations. If a pupil comes to college able to read understandingly, capable of appreciating a good book, and able to discuss intelligently a magazine article, what should the college care whether the pupil in the high school read *Paradise Lost* or the *Jumping Frog*, *Macbeth* or *Treasure Island*? What matters it if a boy has read four *Orations* of Cicero or six, if he has a working knowledge of Latin sufficient to do the work before him in the college Latin? Educators should be less concerned about what ground a pupil has covered, and more about what he is able to do. Emphasizing quantity results inevitably in goading inferior teachers, inexperienced teachers, and teachers of faulty judgment into undertaking more work than their pupils can possibly do well.

EDUCATIONAL VALUES.

One of the big problems confronting the educator of today is that of determining educational values. Of the many suitable and available high school subjects, what special value does each possess, to what degree does it possess this special value, and how is the educator to determine the value? What subjects, if

any, are indispensable to all pupils? Is any subject valuable alike to all pupils?

Once this whole problem was a very simple affair with the individual educator. When the available knowledge of the world was locked up in fewer than a half-dozen subjects, and when the suitable material for training men for the two or three learned professions could be counted on the fingers of one hand, the matter of educational values offered no practical difficulty. All the recognized secondary school subjects could be taken by every pupil. Naturally a single curriculum became established. This single curriculum soon became a tradition, and no form of idolatry is more stubborn than the worship of a tradition. It refuses to listen to reason and laughs at argument.

When the newer subjects began to be evolved and organized, and to seek admission to this traditional curriculum, a fierce conflict arose. The partisans of the traditional subjects and the advocates of the newer ones waged a lively battle. As is usual in such contests, both sides made unwarranted claims for their respective groups of subjects. Out of the conflict came the doctrine of formal discipline, a theory which puts the mental training, or mental discipline, derived from the study of a subject above the content of the subject. It also maintains that mental power is general; that is, power gained from the study of one subject can be exercised without diminution in the domain of any other subject. Strange to say, the most pronounced formalists are the most dogmatic when it comes to selecting the subjects from which this universal power is to be derived.

Within the past twenty-five years the whole subject of educational values has been very seriously studied by the best minds of this country. The last word has not been spoken, but on the salient points there is considerable unanimity. All are agreed that there is such a thing as mental discipline, but many of the claims of its partisan exponents have been utterly rejected. Unless the content itself of any subject is worth the effort to learn it, the mere mental training it may give puts that subject on the list of doubtful value. The notion that any one subject is as valuable, or may be made as valuable, as any other subject is rejected. The notion that everyone in order to be educated must have studied certain traditional subjects has but few defenders. In this connection Prof. Hecker aptly remarks, "No one study is fitted for every mind." "How we teach

a thing is more important than what we teach," is one of the many rash assertions we hear made with more enthusiasm than deliberation. President Schurman of Cornell goes straight to the core of the whole matter. He says, "Education is not merely a training of mental powers; it is a process of nutrition; mind grows by what it feeds on, and the mental organism, like the physical organism, must have suitable and appropriate nourishment." To be sure, the mere disciplinary value of any subject is largely a matter of the manner and proficiency with which it is taught. But the nature and the content of the subject may not justify an expenditure of time and effort to master it. Some of the subjects in our present program of high school studies are rated below par, simply because they are not taught well enough or long enough to reveal their real value. On the other hand, the commonly accepted value of the content of other subjects is open to serious question.

Anything like a discussion of educational values or of mental discipline is of too much import to be undertaken in a little manual. For an excellent discussion of the subject, the teacher is referred to Dr. W. H. Heck's *Mental Discipline*, a recent volume of modest size. Perhaps the best single article on the subject for the average teacher is by Dr. B. A. Hinsdale, in the *Educational Review*, volume VIII, page 128. Another excellent article for the average teacher is by Dr. Patterson Wardlaw, in the *Educational Review*, volume XXXV, page 22.

For additional discussions of educational values teachers are advised to read

Hanus' *Educational Aims and Educational Values*. Macmillan.

Bagley's *Educational Values*. Macmillan.

DeGarmo's *Principles of Secondary Education* (The Studies), chapters I-IV. Macmillan.

Judd's *Psychology of High School Subjects*. Ginn.

PROGRAMS OF STUDY.

When one reflects on the manifold aims of education in a modern democratic society, studies the function and the scope of the secondary school in this democratic society, and examines the educational values of the many suitable and available high school subjects, he is well-nigh overwhelmed with the bigness of the task of program making. Educators and committees of edu-

cators, representing the best thought of this country, have given years of study to the task. On many points these men and women are practically unanimous; on many other points they are far from agreed. Most educators are agreed that education to be efficient must be adjusted to those to be educated, and to the times in which they are to be educated. Therefore, in an advancing civilization with ever-changing economic, industrial, political, and social conditions, no program of studies could be made free from frequently needed revision.

The time-honored traditional curriculum mentioned in the previous chapter has long dominated the high school, and its fetters are still about it. Preparation for college reenforces the strength of these fetters. Here and there you will find a high school principal, or a school board, courageous enough to disregard practice and tradition. Others hold theoretically that preparation for college is a secondary function of the high school, and that the traditional single curriculum is too narrow, but in practice they often repudiate their theory. The first and paramount question asked by high school authorities with reference to any proposed change in the curriculum is, what credit will the colleges allow? Broadly speaking, many high schools exhibit little concern about the pupils not headed for college. Curriculums are not constructed primarily for them, and the character of the teaching often ignores them.

The secondary school with but a single curriculum is an anachronism. It can not meet the needs of all the people. President Eliot says, "The pretended democratic school with an inflexible program is fighting not only against nature, but against the interests of democratic society." The single, inflexible curriculum ignores the various capacities, opportunities, tastes, ambitions, and ideals of the thousands of youngsters of high school age. Neither fond parents nor obstinate schoolmasters may undertake to disregard with impunity the handiwork of the Almighty. The Creator has endowed pupils with various types of mind and various aims in life. Thousands of capable pupils either do not enter the high school or they leave it before graduation, because they ask for bread and are given a stone. The misfits and the wrecks among so-called educated men and women have not yet made us see our folly. You can educate, as we say, or develop, what is implanted by nature in an individual, but you can not remake him. The size or the shape of an oak tree

may be largely determined by the skill of the care-taker, but he can not train it into a cypress. In the terse language of a recent writer, "There is no shop in all the world that manufactures human capabilities and keeps them on sale."

There is yet another vital reason why the single curriculum is too narrow. Trades and vocations by which men earn an honest living have multiplied a hundredfold almost within a century. Year by year some of these are taking on the dignity of professions. The professions themselves have grown in number and have been almost infinitely subdivided. New fields of thought are being opened up with amazing frequency. The scientist in his laboratory within a moon overturns the superstitions and traditions of a millenium and establishes a new department of science. Knowledge one century ago hidden from the sage and the philosopher is today the familiar possession of boys and girls in the high school. To meet all these marvelously changed conditions is the antiquated curriculum now four centuries old.

The destruction of this ancient curriculum is not desirable. Instead: enrich it, broaden it, and readjust it to modern needs. It is a fine thing for some pupils, but not for all. The Erie Canal is just as good a commercial highway as it was in 1830, but it is relatively less important. It is no longer the only highway of that region. Because it has rivals would be no reason for filling it up.

There are at least three ways by which a school may improve upon the narrow single curriculum once so popular. If the school has sufficient teachers and pupils to warrant it, a program of at least two curriculms may be offered. Small schools unable to support two curriculums may have but one curriculum made up of several required subjects and a small group of electives. Still smaller high schools may offer a single curriculum with a minimum number of subjects required of all pupils, and a small number of optional subjects for the stronger pupils. Each of these plans is stated somewhat in detail in the paragraphs following the five curriculums here given.

The high school subjects are classified under three group headings—the humanities, the natural sciences, and the economic sciences. Any curriculum in order to be well-balanced ought to contain some subjects from each of these groups. A curriculum composed entirely of subjects from any one group would be narrow.

After a curriculum has been determined upon, yet another task awaits the program maker. The courses of study inside the curriculum must be arranged. Shall plane geometry be taken up before the completion of algebra, or shall it follow? Shall physics or chemistry precede? How shall the English course be arranged—shall grammar, composition, and literature be taken simultaneously or tandem? Which shall be the last year for arithmetic? What shall be the order for giving history? Some discussion of these matters will be given in the paragraphs dealing with these subjects as studies.

The curriculum or the curriculums of a school are an unfailing index to the strength or weakness of the man that made them. The curriculum may have a clear-cut purpose, or it may be vague and aimless; it may be rich in the content of its subjects, or it may have in it every mark of poverty; it may be strong in its articulation and sequence of subjects, or it may be disjointed and scrappy; the arrangement of the work may be smooth, resembling a gentle ascent, or it may be irregular, resembling a rugged mountain side; finally, it may be a well graduated road leading from the beginning of the first year's work to the end of the last year's work, or it may be a circular path in which pupils after three or four years find themselves facing some of the same work they had the first month in the high school.

The time allotments in the curriculum and in the daily schedule show with reasonable certainty whether the maker of them has an adequate idea of educational values and symmetry, or thinks that his favorite subjects constitute the sum of all education. One can have but little faith in the judgment of a curriculum-maker or a schedule-maker who provides for two recitations a day in one subject to the neglect of other subjects, simply because he fancies the teaching of the particular subject thus emphasized. A curriculum that allots to algebra three years and to physical geography or commercial geography a total of not more than a half-year of daily recitations does not speak well for the judgment of its maker. No broad-minded educator would think of making a curriculum with four years of history, four years of a foreign language, four or five years of mathematics, and but one year of natural science.

The obvious conclusion of the whole matter is that ill-trained and inexperienced teachers are ill-prepared to undertake so big

and important a task as program making for a high school. The Department of Superintendence of the State Teachers Association, recognizing fully the importance of program making and the labor involved in doing such work, at its annual meeting in December, 1916, appointed a special committee to study the whole question and to make a detailed report a year later. That committee consisted of Patterson Wardlaw, Chairman; W. H. McNairy, Secretary; J. W. Thomson, E. S. Dreher, S. H. Edmunds, Frank Evans, W. H. Hand. After studying the whole field a year, and after several meetings of the entire committee, it made its report to the Department of Superintendence in December, 1917. The report was unanimously adopted, and subsequently was fully endorsed by the State Board of Education. Therefore, that report is incorporated in this Manual at this place.

PROGRAMS OF STUDY, CURRICULUMS, AND COURSES FOR FOUR-YEAR HIGH SCHOOLS.

A *program of studies* is used to mean all the studies offered in any one high school; a *curriculum* means the group of studies schematically arranged for any pupil or class; a *course of study* means the quantity of work offered in any one subject.

The term *major study* designates one that is given five 45-minute periods a week for 36 weeks. A *minor study* designates one that is given not more than one-half time.

The following recommendations are made:

1. That 14 standard units, as defined by the State High School Inspector, be required for graduation, and that no school, except possibly a few especially strong in teaching force, should attempt as many as 16 units in a single curriculum; that 16 units in four years might be attempted by a few exceptionally able pupils.

2. That not more than four major studies be required each year; that a pupil of exceptional ability be allowed to take five major studies in some years.

3. That certain constants be required of all pupils in all curriculums, and that the remainder of the studies be electives which shall determine the names of the curriculums.

4. That these constants be: English, four years; Algebra to quadratics, one and a fraction years; American History and

Civics, one year; any other course in history, one year; Natural Science, one year; Arithmetic, one year or half time for two years.

5. That Plane Geometry be strongly recommended for all pupils for one year. In exceptional cases it may be regarded an elective.

6. That Manual Training for boys and Household Arts for girls, including Domestic Science and Domestic Art, be classed as minor studies and be required of all pupils for two years where the school has the teaching force and the equipment, and that credit be given according to the laboratory hours given to each.

7. That as many of the following major studies be offered as electives as the school is able to teach: Latin, four years; Mathematics, three years; Natural Science, three years; History, one year; Modern Languages, two years of each; Agriculture at least two years.

8. That the course in each subject be as follows:

English:

1. Grammar and study of classics—1st year.
2. Composition and study of classics—2d year.
3. Composition and classics—3rd year. (One-half of composition text to be used in 2d year, and the other half to be used in third year.)
4. Grammatical analysis, simple narrative history of British and American literatures, study of classics—4th year.

Mathematics:

1. Algebra through quadratic equations—1st and 2d years.
2. Plane geometry—3rd year.
3. Solid geometry, algebra reviewed and binomial theorem, arithmetical and geometrical progressions—4th year.
4. Arithmetic, one-half time 1st year, and one-half time any succeeding year.

History:

1. Ancient history—2d year.
2. Medieval and modern history, with special emphasis on English history—3d year.
3. American history and civics—4th year.

Natural Science:

1. General Science—1st year.
2. Biology, elementary and practical—2d year.
3. Chemistry—3d year.
4. Physics—4th year.
5. Agriculture—1st, 2d, 3d, and 4th years: or 3d and 4th years.

Latin:

1. Beginners' Book—1st year and part of 2d year.
2. Caesar, first three books, or accepted equivalent—part of 2d and 3d years.
3. Cicero, four orations—3d year.
4. Vergil, four books—4th year.

Modern Languages:

1. French—1st and 2d years.
2. German—3d and 4th years.
3. Spanish—3d and 4th years.

Commercial Subjects:

1. Commercial arithmetic—2d year.
2. Bookkeeping—3d year.
3. Stenography and typewriting—3d and 4th years.
4. Commercial geography—4th year.
5. Commercial law—4th year.

STUDIES GROUPED BY YEARS.**Required:**

English I
Algebra I
*Arithmetic

Elective:**I.**

Latin I
General Science
French I
Agriculture I

II.

English III

Algebra II

Latin II
Biology
Ancient History
French II
Commercial Arithmetic
Agriculture II

III.

English III

Latin III

Plane Geometry

Chemistry

Med. and Mod. History

Agriculture III

German I

Spanish I

Bookkeeping

Stenography & Typewriting I

IV.

English IV

American Histry. and Civics

—
 *Not more than half year re-
 quired in first year.

One additional year History.

One year Science.

Latin IV

Solid Geom. & Adv. Alg.

Phyics

Agriculture IV

German II

Spanish II

Commercial Geography

Commercial Law

Stenography & Typewriting II

CURRICULUMS.**CLASSICAL:****SCIENCE:**

I.

English I**Algebra I****Latin I**

Arith. & Bus. Meth. }
 General Science..... } Elect
 French I..... } one

English I**Algebra I****General Science**

Arith. & Bus. Meth. }
 French I..... } Elect
 one

II.

English II**Algebra II****Latin II**

Ancient History.... }
 Biology } Elect
 French II } one

English II**Algebra II****Biology**

Ancient Histry..... }
 French II..... } Elect
 one

III.

English III	
Plane Geometry	
Latin III	
Med. & Mod. Histy.	} Elect one
Chemistry	
German I	
Spanish I	

English III	
Plane Geometry	
Chemistry	
Med. & Mod. Histy.	} Elect one
German I	

IV.

English IV	
Latin IV	
Am. Histy. & Civics	
Solid Geom. & Adv.	} Elect one
Algebra	
Physics	
German II	
Spanish II	}

English IV	
Physics	
Am. Histy. & Civics	
Solid Geom. & Adv.	} Elect one
Algebra	
Commercial Geog.	
German II	

Of the electives arithmetic, one science, and additional year in history must be taken.

MODERN LANGUAGE:

Of the electives arithmetic and additional year in history must be taken.

COMMERICAL:

I.

English I	
Algebra I	
French I	
Arith & Bus. Meth.	} Elect one
General Science	

English I	
Algebra I	
Arith. & Bus. Meth.	
General Science	} Elect one
French I	

II.

English II	
Algebra II	
French II	
Ancient Histy	} Elect one
Biology	

English II	
Algebra II	
Commercial Arith.	
Ancient Histy	} Elect one
Biology	
French II	

III.

English III	
Plane Geometry	
German I, or Spanish I	
Med. & Mod. Histy.	} Elect one
Chemistry	

English III	
Plane Geometry	
Bookkeeping	
Med. & Mod. Histy.	} Elect one
Chemistry	
German I	
Spanish I	
Stenog. & Typewriting I.	

IV.

English IV**American Histry. & Civics****German II, or Spanish II**

Solid Geom. & Adv. }

Alg. }

Physics }

Commercial Geo-

graphy }

Elect
one

Of the electives arithmetic,
one science, and additional
year in history must be taken.

AGRICULTURE:

I.

English I**Algebra I****Agriculture I**

Arithmetic..... }

General Science.... }

Elect
one

II.

English II**Algebra II****Agriculture II**

Biology..... }

Ancient Histry..... }

Commercial Arith.. }

Elect
one

III.

English III**Agriculture III****Chemistry**

Plane Geometry.... }

Med. & Mod. Histry. }

Farm Bookkeeping. }

Elect
one

These curriculums and the directions are easy to understand.
The required subjects in any curriculum are printed in heavy
face type; the elective subjects are given by years, and the num-

English IV**American Histry. & Civics**

Commercial Geo-

graphy

Commercial Law...

Physics..... }

German II..... }

Spanish II..... }

Stenog. & Typewrit-

ing II }

Elect
two

Of the electives one science
and additional year in history
must be taken.

IV.

English IV**Agriculture IV****American Hist. & Civics**

Physics..... }

Commercial Geog... }

Elect
one

Of the electives arithmetic
and additional year in history
must be taken.

Agriculture I and II may be
taken together in alternate
years. III and IV may be
taken in the same way.

ber of electives by years is indicated; the time allotment to each subject is suggested.

The number of curriculums offered in any school will depend upon the number of teachers employed, the number of pupils in the school, and the number of recitation periods in the daily schedule. But four major subjects to the year are strongly recommended, and 45-minute recitation periods are as strongly recommended. Six 45-minute recitation periods a day may be considered full work for a high school teacher, although there is nothing in the law fixing the number. This matter will be taken up again under Supervised Study.

It is easy to see that a 4-year curriculum requires 16 daily recitation periods. With six daily recitations to the teacher, it requires the full time of two teachers and four periods a day of the third teacher. It ought to be apparent to even a superficial observer that two teachers can not handle with any degree of satisfaction a 4-year curriculum.

While a single 4-year curriculum requires 16 daily recitation periods, it does not necessarily follow that two curriculums would require 32 daily periods. Consider the Classical and Science curriculums together. Unless the English classes taking the two curriculums would be too large, only four periods would be necessary for both. The same would be true as to the algebra in the first and second years, the plane geometry in the third year, and the American history in the fourth year. That is, four periods would take care of both curriculums. In the first year general science is required in one of these curriculums, and it is an elective in the other. Should general science be the elective given in the Classical curriculum, no additional teaching period would be necessary. French and arithmetic are electives in both curriculums. The same arrangement is found in the second year as to biology and ancient history, and as to French. In the third year chemistry is required in one and is an elective in the other. German and modern history are electives in both. In the fourth year physics is required in one and is an elective in the other. Solid geometry and German are electives in both. In short, if no year-class or grade should be too large to be taught together, the Classical and Science curriculums could be given with 20 daily recitation periods. Twenty periods require the full time of three teachers and two periods a day of a fourth teacher. Of course, this is the equivalent of one curriculum re-

quiring three specified subjects in each year and offering an option between two other specified subjects as the fourth subject.

Each of these curriculums was constructed with the intention of making it adaptable to 3-year high schools. But little readjustment is necessary. In the case of history the American history should be transferred to the third year, and either ancient or modern history put in the second. The reasons for this arrangement are given in the discussion of History later in the Manual. In a 3-year school only one modern language could be profitably given. The second and third years seem to be the proper places. In choosing between physics and chemistry in the 3-year school, give the one the school is better equipped to teach.

Suggestions As To Programs.

1. Every high school of as many as 60 pupils ought to offer four years of work. A high school of 60 pupils with less than four years is failing to perform what it owes to the community. A school of 50 pupils can maintain a 4-year program and keep the cost of maintenance within reason. A high school of fewer than 50 pupils is advised against undertaking a 4-year program. To provide such a school with the necessary teaching force of efficient grade makes the cost per pupil too great. Besides, the average 4th-year class in a school of fewer than 50 pupils is too small to justify its maintenance. No one has the right to burden the community to support an unreasonably small 4-year school simply to gratify his pride. An automobile is a useful, convenient, and pleasurable thing, but if a person is unable to afford one, the sensible thing to do is not to try to own one. The same logic is applicable to a school that the community is unable to support.

2. Suppose that your high school has in the 1st year 25 pupils, in the 2d year 20, in the 3d year 15, and in the 4th year 10—a total of 70 pupils. It has already been shown that two curriculums require the full time of three teachers and two periods daily by a fourth teacher. The best interests of 70 pupils can hardly be served by a single curriculum, but it is sometimes exceedingly difficult to make the community see this. No year-class or grade in the school is too large to be taught by one teacher, and so long as this is true it is all the more difficult to get additional teachers. If you can not get the neces-

sary teachers to offer two curriculums, the prudent thing seems to be to offer one good curriculum with as many electives as possible.

3. Suppose that your high school has in the first year 20 pupils, in the 2d year 15, in the 3d year 10, and in the 4th year 5—a total of 50 pupils, the smallest number that would justify a 4-year program. In the ordinary school of this size it would be unwise to undertake to offer two curriculums. The reasons are obvious. To divide the 10 pupils in the 3d-year class into two sections would be destructive of the class spirit and rivalry that come from medium size classes, and to divide the 5 4th-year pupils into two sections would be folly. In such a case offer but one curriculum. Arrange for the 2d-year and 3d-year pupils to take history together one year, and for the same pupils as 3d-year and 4th-year pupils the following year to take history together. In this way two daily recitations may be eliminated without serious hurt to anybody. In the same way the 3d-year and 4th-year pupils may take literature together, thus effecting a further saving of time. The time thus saved can be given to some necessary electives in the 1st-year and 2d-year classes, where the number of pupils would justify two sections.

4. According to the plan recommended by the Committee on Programs, the 3-year high school of a single curriculum would require 12 daily recitations. Two full-time teachers can teach such a curriculum, but it should be borne in mind that such a school does not serve the best interests of all the pupils. As has already been pointed out, two curriculums can be so arranged as to require but three additional daily recitations. Hence, two teachers full time and a third teacher half time can offer two curriculums in a 3-year high school, provided no year-class or grade is large enough to require two sections.

5. The 2-teacher 3-year high school, a very common type, presents several serious difficulties. In the first place, it is in danger of suffering from the over ambition of its teachers in their vain attempt to duplicate the work of larger schools with better equipment. In the second place, its patrons and supporters too often share the ambition of the teachers, sometimes to excuse themselves for not providing enough teachers, and sometimes from ignorance. In the next place, most of the 2-teacher schools make desperate attempts to convert themselves into preparatory schools for college. The 2-teacher high school

should adhere strictly to a 3-year curriculum, four subjects to the year-class or grade, and 45 minutes to the recitation. The small high school can not undertake so much as the larger schools, but it can do well what it undertakes, if it is content to do so. In the school of this class let the 2d-year and 3d-year pupils take history and literature together every year. Thus enough time will be saved from the 12 daily periods to enable an election between two subjects in the first year and between two in the second year. In most such schools the 3d-year class is too small to justify two sections. Of course, the entire situation would be changed by teaching seven periods a day, but such is not recommended. The reasons are stated in the paragraphs on Supervised Study.

THE ONE-TEACHER HIGH SCHOOL.

In South Carolina the high school of two teachers is the smallest type designated as a high school. Below this type in teaching force is what is known as the one-teacher high school. This type of school at present has a distinct function. It occupies an almost unique position. It is the connecting link between the distinct elementary country school and the high school of standard equipment and grade. With the proper organization and management it can become a powerful incentive to the elementary country school, and the chief instrument in bringing about the establishment of high schools of standard equipment and grade in many country places at present without such facilities. The only way for country communities to have, within their own borders, high schools with enough pupils to justify the employment of enough competent teachers to serve a high school, is to combine the high school pupils of several small schools in one high school. Whenever two or more one-teacher high schools take this step, they are performing their greatest service to the communities concerned.

At present most of the one-teacher high schools are failing to measure up to their opportunities, because they are unwilling to confine their efforts to the work they are prepared to do. For one teacher to undertake to do more than two years of high school work, however small the classes, is pitiable pretense, if not plain humbuggery. Let there be no misunderstanding on this point. There is a vast difference between teaching a 3-year high school and coaching two or three pupils for three years to enter

some college. The parents of the pupils who are being coached are satisfied with having the teacher give his time to their children; the less fortunate parents either do not realize what is taking place or are indifferent; the school poses as a high school, and it is all but impossible to persuade such a community to help maintain a real high school. If the one-teacher high school would undertake a 2-year curriculum of but few studies, and do that work well, it would soon convince its patrons that they need something better, and they would join forces with some neighboring community or communities in establishing a first-class high school, independent of their elementary schools. So long as the one-teacher high school continues its present policy of putting on ambitious airs it will be a hindrance to real high school education rather than a help.

THE HIGH SCHOOL PRINCIPAL.

1. By high school principal is meant the person charged with only the high school department, or the person teaching in the high school and supervising the elementary grades. It is to be regretted that so many of the latter class insist on calling themselves superintendents.

2. The principal is intrusted with the general oversight of the high school. Of course, he is expected to work in harmony with the superintendent, if there be one, and with the school board. In any school there ought to be no doubt or ambiguity as to what the principal's functions and authority are. If there should be any doubt, trouble is almost sure to come.

3. A principal ought to be a constructive and directive force. In order to be successful he must have a comprehensive view of the aims of education and a familiar knowledge of the means. A principal of but one idea, or of a closed mind, is doomed to failure.

4. Even with State adopted textbooks, a State program of studies, and suggested curriculums, the principal must construct courses of study for individual classes and make schedules of work for his teachers. This work challenges the best that is in a principal, and a principal without previous high school experience is doing a daring thing to assume such responsibilities. It is hazardous for any teacher to begin his career by assuming the principalship of a high school, no matter how small. Both he and the school are endangered.

5. In the selection of his teachers the principal is entitled to some voice. Sometimes this right is withheld from him or refused him. For a school board or a superintendent to do either is unwise, and the results are harmful. The principal ought to know more about teachers than the board is expected to know, and his judgment ought to count with the superintendent. Whether or not he has any voice in the selection of teachers, he should certainly have the authority to assign them to their work. In doing this he should be very careful. The highest interests of the school and the reputation of his teachers are at stake. In the school are certain tasks to be done and results to be attained, and the teachers have varying fitness and a variety of aptitudes. All of these things must be taken into consideration.

6. The principal should make it perfectly clear to his teachers what his ideals and aims are, what the needs of the school are, and how he and the teachers may work together for the common good. He should ask for definite results, and encourage the teachers to use their own resources in getting results. The principal may have a better way of doing a thing than a teacher may have, but she may be able to do the thing in her way but not in his way. The best service a principal can render a teacher is to develop an individuality in her.

7. A principal has no right to require any teacher to do what he could not do. If it is necessary to have done what he can not do, he is fully justifiable in asking her to consider it. If she undertakes it and succeeds, she is entitled to the full credit. If she fails, the principal should not leave her to bear the blame. Moreover, it is an injustice to a teacher and harmful to a school to require a teacher to try to teach a subject in which she has had no training. It not infrequently happens that a teacher is given a textbook in such subjects as physical geography, commercial geography, physiology, and agriculture, and told to teach a class, when the principal knows that the teacher has never seriously studied the subject. What but failure can be expected?

8. Teachers have a right to look to their principal as their friend, helper, sympathizer, and inspirer. Any principal not so regarded by his teachers needs to discover the reasons without delay. Frankness, sympathy, and helpfulness always bring loyalty.

9. A principal who does not understand boys and girls of the adolescent age had better learn them or give up his position. No amount of scholarship or professional training will stand him instead of a familiarity with the characteristics of boys and girls—their strength, their weaknesses, their impulses, their eccentricities, and their ways of looking at things. Many a principal, in the right, has ignored the viewpoint of his pupils and brought about a crisis that could have been avoided without surrendering or temporizing.

10. The principal should remember that his school is not confined to pupils, teachers, and books. The world outside the school must be kept in mind. The parents of those in the school and the people who have no children in the school are essential parts of that school. These people support the school financially and morally. The entire community watches the course of the principal. People everywhere admire a strong leader and a safe counselor. Herein lies a great opportunity for the principal.

11. It would be hazardous to undertake to say how much teaching, if any, a principal should do. In a small school in which funds are scarce and the teachers few, the principal has but little choice in the matter of his own teaching.* It would seem unnecessary for a principal to give more than one-half his time to supervising 10 to 12 teachers, unless he is running a training school for teachers. The principal is invariably paid a higher salary than any of his teachers. If he should give, in the judgment of his teachers, more time to supervision than is necessary or profitable to the school, he will find it very difficult to retain their confidence and loyalty. Alert teachers are quick to discern when they are over-supervised or needlessly supervised. They are equally quick to see if the principal is using his supervision periods for supervision. If he does not, he can not hope to retain their confidence, loyalty, or respect. Moreover, the more actual teaching a principal does the more practical he is, and the closer the bond of sympathy between him and his assistants. Almost all of the long, tedious, theoretical, and dogmatic dissertations on teaching are written by men and women who do no teaching.

12. It ought to be perfectly clear that the principal who teaches all the time, or nearly all the time, has but little opportunity to observe the work of his teachers or to help them. The school with four, six, or eight teachers whose principal gives

his entire time to teaching is usually weak in organization. Each teacher has a little school independent of the others. Some teachers may be requiring too much of their pupils, while others are requiring too little. There is little concert of effort in the school. On the other hand, the principal of any but a very large school who does no teaching ought to be perfectly familiar with the work of every teacher in his charge. He has absolutely no excuse for letting inferior work go on among his teachers. He is supposed to have the ability to direct and to help them, and he has nothing to do but to direct and help them.

13. A prudent person will be very careful about assuming the principalship of a school in which there are teachers whose education or training is superior to his own. Many a promising young man has met his Waterloo from a failure to exercise a little forethought in this matter. Besides, it would not be well for any but a principal of established reputation to take charge of a school with any considerable number of teachers who from mere long service have come to regard themselves as indispensable to the school.

14. The principal of a school has not time to carry on any other business. If the salary offered is insufficient, the principal ought to refuse to accept the position. He would make a mistake to accept the position, unless he intends to give his entire time and thought to it. Of course, he could sell the school a part of his time and give the remainder to some other business and be honest, but could he hope to succeed in either?

15. Neither a lazy man nor a slouchy and uncouth one will ever make a fit principal to put over boys and girls. The lazy man is so nearly hopeless that we may dismiss him. The slouchy and uncouth man has no place in the schoolroom. Pupils are to be polished as well as taught. A man may be a genuine diamond in the rough, but a slouchy, uncouth, crude, and angular principal does not promise much toward polishing others. Polish given to boys and girls of the high school age is more or less permanent, that given to them after they pass that age is too frequently mere veneer.

16. Almost all 2-teacher and 3-teacher high schools have at least one man teacher, the supervising principal. In most co-educational high schools of more than three teachers the proportion of men is unfortunately small. The boy of the high school age needs something that no woman can furnish—the pe-

culiar influence which comes from intimate companionship with a strong man. A woman can teach him, but she can not be a man to him. It is idle to talk about a woman's taking the place or the part of a man in the education of a boy. A woman can no more take a man's place than a man can take a woman's place. Both are necessary in the training of both boys and girls.

17. A principal on going to a new school would do well to make in it as few changes as possible, no matter how badly needed, until he shall have had sufficient time to win the confidence and support of his teachers and patrons.

THE HIGH SCHOOL TEACHER.

Personality counts for more than anything else in the high school teacher. Personality, poise, and tact are winning qualities in any teacher. Any person endowed with common sense, approachableness, sincerity, good manners, and an agreeable voice ought not to have any excuse for failure as a teacher, unless he is an ignoramus as to his subject matter. Any teacher with such endowments can get a grip on the lives of high school boys and girls. However, the teacher must never confuse companionableness with kittenish familiarity. The reserved and unapproachable teacher never draws pupils or holds them, and the obsequious teacher invariably repels and disgusts pupils. Excitable and impetuous people ought not to attempt to teach. Bluntness and rudeness have no place in the schoolroom. Sarcasm is never the tool of a great teacher: it is the weapon of weaklings. A bad voice is a handicap. A whining, rasping or high-keyed voice irritates people in even the most favorable circumstances. A nagging teacher never succeeds, and the worst of it is the nagger never seems to realize that he does nag. Any man or woman, by careful watching and determined effort, can completely transform his personality.

2. The teacher may be master of himself and master of his subjects, but unless he can command the respect, the confidence, and the interest of his pupils, and give them some permanent inspiration, he need not look for marked success. Some excellent scholars are all but total failures as teachers, simply because they never grip their pupils. Pupils must be reached before they can be taught. The person taught and the thing to be taught must be reduced to a common denominator, so to speak, before there is any genuine teaching.

3. The teacher who never meets his pupils outside the classroom on terms of companionship, rarely ever succeeds in entering their inner lives, their holy of holies. Real comradeship may be cultivated in the classroom, but that is hardly the ideal place for it to originate, nor is it the best place to cultivate it. In the average classroom there are too many things to prevent or to impede the closest comradeship between teacher and pupil. Even the common question-and-answer method of conducting recitations does not foster an ideal comradeship. This is especially true with teachers who keep their little grade books in constant evidence. To such teachers the average pupil has as little to say as possible on the recitation.

4. In order to make a companion of a pupil the teacher must meet him on his own ground, not on the ground of the teacher. The teacher must find out the pupil's tastes, his hopes, his aspirations, his difficulties, his discouragements. He must find these out indirectly. They are too sacred to be discussed in the classroom, and the average pupil can not be lured into discussing them among his fellows. As a big brother the teacher can get at them. On a quiet walk, on a fishing trip, or on some similar occasion, the teacher can draw the pupil into revealing his whole inner life. In doing all this the teacher must never play the detective nor betray the pupil. If he does, the pupil will quickly discover it and never forgive him. The following fine sentences are from *Tom Brown's School Days*: "The object of all schools is not to ram Latin and Greek into boys, but to make them good English boys, good future citizens; and by far the most important part of that work must be done, or not done, out of school hours. . . . Were I a private schoolmaster, I should say, 'Let who will hear the boys their lessons, but let me live with them when they are at play and rest.'" The old-time country school, with its long noon recess at which the teacher and the pupils played together, offered the teacher an opportunity to grip the inner lives of his pupils which is impossible in our modern schools with their existing schedules.

5. In successful teaching there is absolutely no substitute for sound scholarship. It is a powerful asset. Good scholarship has been defined as a thorough knowledge of a few things and a general knowledge of a great many things. It ought not to be necessary to remind teachers that no one can teach properly any subject with only a superficial knowledge of it, yet it is to be

feared that some teachers attempt it. To teach a subject with any degree of success the teacher must be at home in it. A teacher is courting professional suicide when he undertakes to teach a subject about which he knows little. No teacher is expected to be able to teach all the subjects offered in even a small high school, and he ought not to feel ashamed to admit frankly his unpreparedness to teach some of them.

6. A teacher may be well fitted to teach elementary grades, and be wholly unfit to teach high school subjects or high school pupils. Owing to his small teaching force, a principal sometimes brings an elementary teacher into the high school for one or two periods a day. This is always attended with risk. After a teacher has adjusted herself to young children three or four hours, it is well-nigh impossible for her to readjust herself immediately to adolescents. The two classes of pupils think and move on an entirely different plane.

7. Dr. Thomas Arnold once wrote to a friend for assistance in finding a teacher. He said, "I want a Christian gentleman, one who has common sense and understands boys." By common sense he did not mean sense common to all people, but sense about common things, every-day affairs. A profound scholar and a highly trained teacher in the art of teaching might make himself ridiculous about some every-day affair. A teacher with a reputation for having no common sense is to be pitied.

8. A teacher on going to a new place ought to be careful about the traditions of the community. Some of the customs and habits of the people may to the teacher seem provincial, but if he is wise, he will walk and talk circumspectly. A few words spoken rashly, no matter how truthfully, may arouse such a feeling of resentment as to make his life a burden and his work an utter failure. The lares and penates of a community must be given a prudent respect, at least until the teacher has established himself in the hearts of the community. Resentment and antagonism are almost certain to come from unnecessary and unfavorable criticism of some former teacher. Any teacher is unwise to make openly adverse criticisms about his predecessor or his work. In the first place, such criticisms do no good. In the next place, the predecessor's friends are ready to defend him, and even his enemies will resent the criticisms as cowardly.

9. Teachers sometimes make serious blunders in seeking employment in a school and in accepting positions in it without

knowing anything of the school, the principal, or the people. The very ideals of the school may be repugnant to the teacher. The principal may be egotistic, selfish, ignorant, exacting, unsympathetic or otherwise unattractive. The teacher and the people may have nothing in common. Prudence would suggest learning something of the environment before going into it.

10. The success of a school depends very much upon the harmony among the teachers. Concord among teachers makes work joyous; discord makes the work a drudgery and life burdensome. If a teacher finds that he can not work in harmony with his fellows, he ought to withdraw from the school. A teacher who will not work in harmony with his fellows should be dismissed at once.

11. It is utterly useless for a dull, phlegmatic teacher, without a particle of enthusiasm, to hope to inspire pupils with any zeal for their work. Inspiration is contagious. When a teacher complains that an entire class is lacking in spirit and enthusiasm, he is giving himself a very poor recommendation. It is his business to discover the cause of the trouble and to apply the remedy. The fire that comes from inspiration burns with a steady glow. Pupils may be coddled and cajoled into spasmodic efforts, or they may be flattered into believing that they are doing good work, but unless their enthusiasm is genuine, the fire is soon burnt out.

THE HIGH SCHOOL PUPIL.

It is no disrespect to say that the pupil of high school age is a complex and perplexing young animal. Throughout the history of the race he has been a riddle. He is equally interesting and likable, and his possibilities can scarcely be measured. The high school pupil, adolescent, must be studied, understood, and reckoned with, if he is to be taught. There are some very pronounced characteristics more or less common to all pupils of this age. He is usually rash in speech and action. Impetuosity is one of his native weaknesses. He jumps at conclusions, and does his thinking afterwards. He loves excitement and adventure, and wanderlust often takes possession of him. He likes the big things and has little patience with the little things. For instance, he chafes when he states his proposition in geometry and is not permitted to follow the statement immediately with the conclusion. He spurns the step-by-step solution. He is care-

less and irresponsible, because he does not yet know the value of being otherwise.

2. The other side of this animal is found in his alertness and his vigor, his pride and his honor. The normal boy of fifteen is neither dull nor asleep. And with all his impetuosity and wild spirit, he likes to be directed and controlled. He admires strength and authority justly exercised. He does his best to have his own way, but in the presence of his open victor he stands with admiration. In the language of the playground, he is a good sport. Besides, he stands for fair play and despises double dealing. He has his peccadillos in plenty, but he has a wholesome respect for the finer things of life. He is quick to recognize a true friend, and just as quick to detect a hypocrite.

3. Up to this time the term *boy* has been used. This was for mere convenience. Most of the characteristics mentioned belong alike to the boy and the girl. In addition to these there are some characteristics of the girl radically different from those in common with the boy. For instance, the girl of this age is more emotional than the boy. High school teachers sometimes fail in their management, because they forget that boys and girls are as unlike in their natures as in their bodies. A co-educational high school is more difficult to control than a school attended by only one sex. For this reason, if for no other, whenever a high school becomes large enough to justify the additional expense, it ought to be divided into a school for each sex.

4. One can breathe a little more freely since the eugenic craze of a few years ago has somewhat subsided. The matter of sex in education has its vexatious questions, and I am frank to say that I doubt my ability to discuss them helpfully. However, I feel safe in offering at least one suggestion. About the time the girl enters the high school she is also entering the most critical period of her physical life. Her whole being is undergoing radical change. More than at any other time in her life she needs to conserve every particle of her vitality. At the very moment when the young girl most needs to husband her strength she is often set to the most difficult tasks of her entire school life. In visiting schools I have often been astonished at the high tension at which some teachers work girls at this age. Even women teachers often seem as indifferent, or as ignorant, as men teachers. Ambitious and thoughtless teachers and parents put young girls into the high school and drive them almost with whip and

spur to keep up with, or ahead of, the brawniest boy in school. Headaches, flushed cheeks, dizziness, even tears, are blindly disregarded in the wild drive for grades and standing and diplomas. Does it pay to burn out the vitality of the body for the temporary benefit of the brain? Is a nervous wreck to be chosen as the price of an education? A little care at the proper time will avert serious disaster.

5. It must not be concluded that all high school pupils are paragons. It must not be thought that all are fit material to be worked up into fine products. The blunt truth is, there are a good many boys and girls naturally bad, or are made so by their environment before the high school gets them. There are vicious boys and girls, there are liars, there are rogues, there are fomenters of discord, there are gangsters, there are ward politicians in the pupa stage, there are gutter snipes, and a few others. Any teacher so gullible as to subscribe to the pious cant about there being no such thing as a bad boy or a bad girl needs a guardian. But, because there are bad boys and bad girls, and because they seem unpromising material, the high school teacher must not give them up without a supreme effort to save them. Society demands their being saved, if possible. Some of them can be reformed, some can be remolded, some of them can be softened, and some can be deflected from their course. Whatever is done for them will make the State that much better and safer. These are the pupils that test teachers. Anybody can teach a wholesome boy of good mind, in good health, with favorable environment, and with a desire to learn. Almost anybody could quickly make for himself a reputation as a teacher, if he had none but model pupils. Try yourself on the unpromising material.

6. No matter how bad a pupil may be, he is entitled to an opportunity to attend school and to get out of it all he can. But he has no right, inherent or otherwise, to demand attendance at school, unless he is amenable to reasonable authority and conducts himself in a becoming manner. Much silly sentimentalism has been said and written about every pupil's having a right to attend school, and the great injustice done him and his family when he is denied the right of attendance. The good pupils of the school have rights which ought to be respected. They are entitled to protection, just as the bad ones are entitled to a chance. Whenever a pupil in school refuses to conduct himself in a decent manner, or defies the authority of the school and the good will

of his fellows, or becomes a nuisance and a hindrance to others, the school should dismiss him without delay. A derelict is a constant menace to all the other craft that come near it.

GETTING PUPILS TO STUDY.

1. In the final stock taking, all other tasks of the teacher are minor ones in comparison with getting pupils to study. The teacher must stand or fall by that crucial test. Anybody can teach the pupil with the ability and the willingness to learn, but to teach the unwilling pupil and the indifferent one puts the teacher to the test. From time to time all manner of devices have been tried in the schools to induce, persuade, or compel pupils to study. One of the oldest devices is the use of the rod, and for a long time it was used generously. In fact, it was the panacea for all school ills. The insolent pupil and the dull pupil were both liberally flogged to put them into the straight and narrow path and to keep them there. The trouble was the lack of judgment in applying the remedy. Insolence and indifference to books might both be diseases, but it is doubtful if a discriminating physician would prescribe the same remedy for both. This abuse of the rod brought about a revolt against it a few years ago. The revolt was so pronounced that its use came to be regarded as a remnant of barbarism, and Solomon's wisdom was thrown out of court. A revolt against any extreme is almost certain to be followed by some other extreme. So it was here. Moral suasion became the talisman in the school and in the home. Teachers and parents no longer commanded children to do anything; they requested them instead. Recognized authority stands behind obedience. Hence, these requests were often treated lightly and sometimes ignored. Teachers and parents could not quite afford to be disobeyed, therefore their requests would be modified or withdrawn. "And it remaineth thus until this day." Moral suasion, in practice, often seems to mean carefully ascertaining what a child is willing to do and when he is ready to do it, then requesting him to do it. *You must* in regard to study and to conduct is at a discount.

2. Interest is a powerful incentive to anything. However, soft pedagogy perverts the doctrine of interest into making everything attractive and easy to be done. All knotty questions and intricate difficulties must have some kind of glamour thrown around them by making them inviting. Now, interest that is

artificial is short-lived. An individual has a real and permanent interest in anything that he is mastering, provided it is worth the effort. Study that is sugar-coated and given in small pellets may for a time serve a purpose, but if the study is worth while, it will require some hard work, and there is no use trying to disguise the fact. Men and women all through life must do things they dislike, and there is good reason to believe that their fiber is toughened thereby. Boys and girls who never do any difficult and distasteful tasks are flabby. To verify this statement look around you. "In the sweat of thy face shalt thou eat bread" is even more pitiless in the intellectual world than in the physical world.

3. Grading pupils by percentages, or their equivalents, as an incentive to study and conduct has long been used almost universally in the schools. The first difficulty about grading is that it is mechanical, theoretical, and arbitrary. Grading might work admirably as an incentive and a corrective, if we knew just what to grade, just how to value study and conduct in figures, and if high school pupils had any serious faith in our figures. At best, grading is a relative matter and a matter of judgment. The grade a teacher gives his pupils in study depends too much on the condition of the teacher's liver at grading time. The next difficulty about grading is that a given grade does not have anything like a universal meaning. The grade 80 per cent. may mean six different things to as many people. The more any teacher swears by his grade book, the less are the delicate distinctions in his grading to be trusted. Records are necessary, and some kind of grading is a part of the record. But teachers are advised not to depend upon grading as a wholesome incentive to high school pupils. If you are skeptical, find out in a quiet way what your robust boys and girls really think of the reliability and worth of grade books.

4. Prizes and medals are freely, if not lavishly, given in some schools. Teachers are advised to use the greatest caution in offering either a prize or a medal. It may have a wholesome effect or a disastrous one. The purpose of a prize of any kind is to lead the pupil to real effort and not a mere appeal to his natural talent. A pupil of talent or ambition needs no such incentive. If the medal or the prize serves as an unnecessary and unnatural incentive to the pupil, it were better not to offer it. If it serves to discourage the less gifted pupil, it is harmful.

Wherever the offering of a prize leads to dishonesty untold injury has been done. On the other hand, if the prize can be made to stimulate the gifted but lazy pupil, or bring the pupil to discover himself and to develop his talent, it serves a worthy purpose. Prizes should be offered to groups of pupils rather than to individual pupils, and should be given for positive standards of attainments rather than for relative standards.

5. In many schools honor rolls are used as incentives, but there is room for suspicion that honor rolls are coming to be used to exploit schools and teachers as much as incentives to pupils. The honor roll may be made up of the names of a certain number of pupils standing highest. To this plan there are two serious objections: 1. In the very nature of the situation the weaker pupils are proscribed, and the unambitious uninfluenced. 2. The standing of the pupil next below the last name on the honor roll may be such as to stigmatize the distinction as ludicrous. Another method of making up honor rolls is to put on them the names of all the pupils who make a given minimum grade or above it. This method is safer than the first mentioned, but it is open to the same objections. In short, the elemental weakness in all honor roll schemes goes back to the primary question of all grading, namely, what is the teacher grading, and how does he arrive at his figures? I regret to say that I once used honor rolls. I do not think I would do so now.

6. One of the latest so-called incentive fads in captivity is the perversion and prostitution of genuine and salutary home-school cooperation by the school's crediting pupils with splitting wood, feeding the chickens, washing the dishes, and dressing the baby—all at home. It would require a genius in manipulating a grade book to give the proper credit to a boy on his school algebra for killing potato bugs in the garden at home. Some one may think I am attempting satire by introducing fictitious credits. Every credit here mentioned and twenty more of the same brand may be found in the magazine articles and books advocating school credits for home work. The closest possible cooperation between the school and the home should be cultivated, but this new fad ignores two important things: 1. That the school and the home are distinct institutional units, and that while their functions are mutually helpful they are not interchangeable. The school should supplement the home as far as possible, but for the school to undertake to take over the preroga-

tives and the functions of the home is unwise. The home is God-made; the school is man-made. 2. That it is absurd to credit a pupil in one field of endeavor for work done in another field. The teacher of English assigns home study for his pupils. The home cooperates with the teacher by requiring the study to be done. The teacher credits the pupils with all the work done in English, at school and at home, but the credits are confined to English. Besides, the teacher asks for no certificate from home as to the work done there. Instead he makes his own tests to satisfy himself. The teacher of physics or of agriculture properly credits a pupil for every particle of the home project work he does, but the teacher sees the work for himself and satisfies himself that the pupil did the work. However, the English teacher could not consistently credit a pupil on his English for his work in physics, to say nothing of dressing the baby at home. A sensible teacher of physics would be slow to credit a boy on his physics for feeding the chickens at home. The home-credit enthusiast, like most other enthusiasts, at once became a fanatic, and his fanaticism has led him astray. The correlation of kindred subjects in school is world-old. It is sound to the core. But a few years ago a few teachers became so fanatical in advocating correlation that they did untold harm to the very thing they attempted to strengthen. Resourceful teachers for long years had known that in Robinson Crusoe there was more than a simple story of a lone man on a lone island, and they were correlating that story with other things. But the correlation fanatic was not content with that. He insisted that we might take that one story and teach reading, grammar, composition, literature, geography, commerce, history, sociology, mythology—I forget the others. Teachers, beware of the educational hobby-rider. He means well, but he is unsafe.

7. There remains to be mentioned one more incentive to study, one that is as old as education itself, the personal supervision of study by the teacher. *We learn to do by doing* is a laconic educational maxim much used. The maxim is incomplete. *We learn to do by doing under guidance* is the way that the lovable and philosophical Dr. Emerson E. White used to express it. Every one will agree that a pupil ought to be thrown upon his own resources as far as it is possible without loss or injury to him. A pupil must in the end learn to depend upon himself, but there are times when he needs guidance to prevent waste.

One of the chief tasks of the high school is to teach pupils how to study. At that age very few have learned how. Many a pupil of reasonable ability and ambition has failed measurably, if not completely, to grasp the essentials of a lesson assignment, because he did not know where or how to attack it. A suggestion, a hint, or a word at the proper moment would have saved the day. There are fewer pupils unwilling to study than there are ignorant of how to study.

Under our present school organization in America the school day is almost entirely given over to recitations of the American type, and the teachers are heavily burdened with recitations. Far more than one-half the high school teachers are on recitation every period in the day. A good many others have one vacant period a day, and a very few have from six to ten vacant periods a week. Those with no vacant periods during the school day are shut off from the opportunity of teaching pupils how to study, except in an incidental way on the recitation. Those who have one vacant period a day have some opportunity to guide pupils in their study. How shall the period be used? It is to be feared that a few teachers simply give the pupils instruction to study while the teachers sit at their desks. In even this there is some little benefit. It is worth something to pupils to acquire the habit of doing some study at a definite period every day, especially if the pupils are required to study a certain subject at that time. Some teachers have a regular schedule of study for that vacant period, that is, the entire class knows beforehand what subject is to be studied at that period. By this plan a class has the opportunity to give one period of study each week to each of his subjects under the guidance of a teacher.

At school the pupils labor under the same difficulty under which the teacher labors. The pupils are on recitation the larger part of the day under our present organization, but they usually have more vacant periods than the teacher. Hence, some of the vacant periods of the pupils must be used without the guidance of the teacher. Here is where the waste is mostly found. The pupils too often spend the time in a species of mental vagrancy.

From all this it is evident that high school pupils must depend almost entirely upon home study for the preparation of their work. Now, what are the home conditions? Are they favorable to study? In the first place, young pupils must have quiet in order to study. How many homes offer this quiet?

Most pupils must sit around the family fireside to do what study they can. During the winter months it is imperative. All the gossip of the day is recited in their presence while they pretend to study. Evening visitors and perhaps a crying baby add to the burlesque called home study. Moreover we must not forget that these pupils frequently need assistance. In many a home of hard-working, sacrificing, honorable parents there is not a person able to assist a high school pupil in need of it. What is the pupil to do? What can he do? Again, there are homes where the parents can assist high school pupils, but do they do it wisely? Instead of wise guidance to the pupil the parents too frequently do the pupil's work for him. Verily, and sometimes that work is incorrect. Then serious difficulty is imminent.

More study in school under the immediate eye and direction of the teacher seems to be the best solution of the whole problem. This by no means is to be taken as a suggestion for less home study. It means more effective home study. Supervised study, as it is coming to be called, has in it several elements of decided merit. 1. It offers the most favorable conditions for study; 2. The teacher assigns definite work with definite directions for it, and gives the necessary guidance in doing it; 3. The study of assignments occupies as definite place in the daily schedule as the recitations; 4. Pupils are kept at work at definite tasks at specific times and for definite periods; 5. Pupils learn to study systematically; 6. Pupils are not only guided in their study but their thinking power is being tested by the teacher at every step; 7. Day by day the horizon of the pupils is being enlarged.

There are several methods of conducting supervised study. The one that appeals to this writer as the best he knows is here very briefly described. Instead of setting apart a certain period or a certain hour each day for supervised study alone, that time is distributed by adding it to the regular schedule periods. In schools normally running on 45-minute periods these recitations would be extended to 55 or 60 minutes each. The recitation of the usual lesson assignment is given 35 to 40 minutes. At the expiration of that time, without any break in the work, the entire class attacks the next assignment under the immediate eye and direction of the teacher, and continues this until the end of the 60-minute period. The next day the teacher will begin the recitation perhaps just where the subject was attacked the

day previous, make his tests on the new assignment, and again advance beyond the assignment. To illustrate: Let us suppose that the algebra class is just finishing Chapter V of the State adopted text. Chapter VI introduces a new subject, Linear Equations. The 20 minutes allotted for supervised study would be given to a very careful study and explanation of the new terms and the new processes. The class would leave the recitation with at least a fair understanding of what the new assignment is about. Again, let us suppose the class is just finishing page 56 of the same text. Something entirely new to the pupils looms up on the next page—Problems. They have solved similar problems in arithmetic, but here they must be solved algebraically, and it is highly necessary that the pupils shall approach the work properly. Again, suppose the class to-day finishes Book II of Caesar's Gallic War, and the next assignment begins with Book III. Unless some guidance is given the average class, it will fail to grasp the situation at the opening of Book III. Without some guidance the mere translation of some Latin sentences will likely be taken as the object of the assignment. Even in the matter of translation some definite guidance is helpful, if not necessary. The very first chapter opens with the word *cum*. At what point in reading the sentence (not in translating it) should the pupil be able to discover the part of speech to which *cum* belongs? In the same way when is he able to tell if the word is to be translated *when*, *while*, *since*, *as* or *although*? It is in such matters as these that the high school pupil needs the wise guidance of the teacher. The teacher is not to do the work for the pupil, but he is to discover the power and the weakness of each pupil and to render just such guidance as each needs.

Perhaps the best single volume on this subject is Hall-Quest's *Supervised Study*. Macmillan.

THE HIGH SCHOOL RECITATION.

1. The high school recitation has somewhat aptly been called a tilting match between the teacher and his class. In the field of elementary dialectics this definition is fitting. The pupils in the class discussions with the teacher and with each other have their wits sharpened, they learn to use their reasoning powers and their judgment, they learn the difference between argument and sophistry, they come to know when a thing has been de-

monstrated, and they learn to be logical in a demonstration. However, the recitation is much more than a mere tilting match. It is the place to which they come to have the chaff winnowed from the wheat they have gathered, or to have the dross melted out of the metal they have mined. Here the teacher rises above the plane of a mere fellow combatant in a passage at arms. He becomes the expounder of truth and the high priest of its temple. This is high and enviable ground, and not every teacher rises to it. Yet, there is even higher ground to which a few choice teachers rise. The pinnacle has been reached when the teacher rises to the height of inspiration, and reveals to his class the holy of holies in the realm of spirit. Then it is that the pupils feel like taking off their shoes, because they are on holy ground.

2. Before scaling the heights we must first traverse the foothills at the base. We do not often ascend to the heights, but we can go occasionally after we have learned the way. So in the recitation. We do not frequently rise to the sublime heights where we become an inspiration, but if we do the ordinary teaching in a thorough manner we may occasionally rise above the common-place.

3. The opening remark of the teacher at the beginning of a recitation often sets the standard for the period. Do your utmost to begin well. A frivolous remark at the beginning of a recitation on a serious topic, or an undue solemnity injected into the study of a light and cheery topic, may badly mar what otherwise might have been a successful recitation. Successful teaching depends very largely upon the attitude of mind the pupils bring to the recitation. If pupils all came to the recitation with the right attitude, teaching would be comparatively easy. However, to create this attitude is a part of the teacher's task.

4. On the lesson assignment largely depends the character of the recitation. The assignment should be made with care. It should be done in such way as to let the class understand what it is expected to do by way of preparation for the recitation. If left without suggestion or guidance, pupils often have but a vague idea as to what they are expected to do. High school pupils are not prepared to take up a book or a lesson and grasp the content without some guidance. If they were able to do so, they hardly need to go to school to study successfully. To close a recitation by saying, "Take the next section," or "the next page," is not the mark of a good teacher. Frequently teachers,

in a commendable effort to give due care to the assignment, make it at the opening of the recitation period. This may be a serious mistake. It may be that today's recitation leads immediately up to what the teacher wishes the class to undertake for the first time. In that case, the best time to make the assignment would be at the close of the recitation. The purpose of the assignment would then be clearer to the pupils. Be sure to take ample time to make assignment.

5. As soon as you have tested your pupils on what you assigned them to do, you have an excellent opportunity to observe how your pupils think, by ascertaining what they can do with their new acquisitions. How can they correlate the new acquisitions with related things they had previously learned? Some will quickly see the previous in the light of the new, and the new in the light of the previous. Others will see no relationship at all. You must teach such pupils. Your next step is to start the class, under guidance, in some definite channel of thought or application or experiment. The guidance mentioned is to insure against loss of time in useless digressions and in exploring unfruitful by-paths. Every discovery or conclusion your pupils make you want to manage to bring back and tie it up with some previous discovery, conclusion, or hypothesis. All this requires time. You will need every second of your 45-minute recitation period. You can here appreciate the futility of trying to teach a high school recitation in 20 minutes, as the little make-believe high school does.

6. Skillful questioning is indeed a fine art. Not every teacher possesses it, but every one can attain reasonable proficiency in it by diligent cultivation. Rapid-fire questioning seems to be the goal in the mind of many. Such questioning may be well enough, if you are sure that your questions are well selected and the order of asking them is logical. Any kind of rapid-fire weapon is dangerous, except in the hand of a skillful marksman. Besides, the best questions are those which produce serious thought, and serious thought requires time. Do not do all the talking or all the thinking during the recitation. Give the pupils a chance. Make it your study to ask none but well-thought-out, well connected, and well stated questions; give your pupils reasonable time to think, then insist on direct and well expressed answers. Here is your golden opportunity to teach language as a necessary vehicle of thought. In the high school

do not waste time having simple answers to simple questions answered in complete sentences. You are not teaching primary children. If you ask a series of logically connected questions in developing any topic, you have suggested to your class the process of thinking in arriving at a conclusion. Rambling and disconnected questions never make logical pupils. Sir William Hamilton was accustomed to tell his pupils that they did not come to him to learn logic but to learn to be logical. Furthermore, your questions ought to aid your pupils in determining the relative worth of the facts recorded in the textbooks.

7. With reasonable safety a careful observer can form an estimate of a teacher by his questioning on a recitation. In Moore's *What is Education?* is recorded the following highly suggestive incident:

"I once entered a classroom while the class was engaged upon that passage of the oration for Archias in which Cicero attempts to make the thoughts of his auditors rise to the nature of the poet's mission. To do this he refers to 'our Ennius,' the author of the *Annals*, the father of Latin poetry, 'who calls the poets holy, for they seem, as it were, to be approved to us by special gift and favor of the gods.' This is a tremendous saying, and I waited with eagerness to hear what sort of question the teacher would ask on such a passage. It came, 'Why is *videantur* in the subjunctive mood?'"

Miscellaneous Suggestions.

1. At the outset make up your mind that you are going to succeed. Resolve to master the subject matter, then decide on the best way in which you can present it to your pupils. Here is where your individuality comes into play. Learn all you can from books and teachers as to methods of teaching, but adopt that method in which you can make yourself at home.

2. Remember that in teaching you must have direct dealings with people as well as pupils. You must deal with parents, the school board, the friends of the school, and in most instances other teachers. Be frank, cordial, dignified, and sincere with all. Frankness does not mean rudeness, abruptness or incivility; cordiality does not imply servility; dignity and stiffness are not synonymous; sincerity is the flower of simplicity.

3. Use common sense and discretion in everything you undertake. Do not undertake impossible things. Avoid being rash

or impetuous in anything. Do not undertake more work than good average teachers have found enough. You may be a better teacher than the average, but your equal can be found somewhere. Be guided by the judgment and experience of your equals. Teachers of extravagant notions soon come to be discounted. Do not try to make people believe that you have some patented process by which you can accomplish more than other teachers. Teachers or schools arrogating to themselves extravagant claims of superiority usually discover that well informed people do not take them seriously. The teacher who carries his classes over more literature than good teachers attempt, or has his classes to read more Latin than an old Roman would have done, or "completes" any book or subject within about half the time the average teacher gives it, soon falls into disrepute with sober-minded people.

4. Remember that there is a limit to the endurance of a teacher and of a class of pupils. A fatigued brain refuses to be clear and alert. No teacher can do high-class work uninterruptedly for five hours. There ought to be some relief, either a rest or a change of work. The supervised study already mentioned offers relief. It is exceedingly unfortunate to be compelled to teach every period in the school day without some kind of relaxation. Pupils are no better fitted to study five hours a day without relaxation than are teachers to teach. Their minds become sluggish and dull, if overworked. Occasionally a principal of an iron constitution imposes upon his teachers and his pupils by making them keep pace with him. Such a person might learn a wholesome lesson if he would occasionally try conclusions with a professional wrestler or with some pugilist. Only Hercules could wield Hercules' club.

5. One of the weaknesses of our schools is the overloading of pupils with studies. I do not mean that the pupils do too much study, but that they are required to study too many things at one time. A mistaken notion as to the meaning of the enrichment of the program of studies is responsible for the present situation. Variety in study, as in other things, is desirable, but when the variety itself becomes burdensome it is highly undesirable. A few subjects well chosen and pursued vigorously will give far better results than a large number of subjects half-learned and half-taught. The trend of opinion among the most thoughtful educators is decidedly toward four major subjects

at a time in the high school. Those in the best position to judge tell us frankly that most of our high school pupils have a smattering of a good many subjects, but that they have mastered none. Principals and teachers are chiefly responsible for this. It can hardly be laid to the door of the pupils.

6. If your work is in some 3-year high school, do not try to parallel or duplicate the corresponding work in some 4-year school. Do not be so foolish as to try to make your 3-year high school do as much work as is done in any good 4-year school. Please bear in mind what disaster overtook Aesop's frog when it tried to make itself as big as the ox. You may rush your pupils over more work than other teachers as good as yourself may do, and for a time everything may seem to go well, but rest assured that in due time your mistake will be found out. There is no royal road to learning, nor is there any magic method of teaching.

7. In your program of studies make some provision for taking care alike of the normal pupil, the super-normal pupil, and the sub-normal pupil. The school does not exist for any single one of these. Each is entitled to the best that the school can do for him. Do not be afraid to break away from indefensible tradition which required every pupil to take the same amount of work, regardless of whether the pupil is strong or frail, vigorous or indisposed, brilliant or slow and plodding. It is better to give a vigorous and capable pupil five major subjects a year than to have him mark time with a class carrying four subjects. Is it better to permit a sickly or a slow pupil to carry three subjects a year and stand well in these, or to require him to carry the allotted four with such ill success as to drive him out of school? However, do not fall a victim to the common fallacy of declaring that all your pupils are brilliant as an excuse for giving them too many subjects.

8. Although there is strong argument favoring one teacher's teaching all the subjects to a given class, the weight of argument seems to favor departmental teaching in the high school. Where one teacher teaches the same class English, Latin, and history, or mathematics and science, the natural correlation of subjects can be more easily made. On the other hand, the English, or Latin, or the history is better correlated through the entire school under the departmental plan. The teacher of a single high school subject stands in considerable danger of becoming narrow and

isolated in his thought range. To counterbalance this is the fact that very few teachers are equipped to teach equally well more than two or three high school subjects. A teacher may be strong in one or two subjects but relatively weak in others. Principals are usually wary about employing high school teachers who claim to be equally well prepared to teach a half dozen or more subjects. However, there is one danger that must be carefully avoided in departmental teaching—the danger of over-working pupils as the result of each teacher's unduly emphasizing his subject. Should the English teacher unduly emphasize his subject, the mathematics teacher unduly stress his, the Latin teacher forget that his pupils have any other than his subject, the pupils are in danger of being overworked.

9. To get the best returns from school work, as from ordinary business, it is necessary to provide against as much waste as possible. What ought to be a profitable business is often a comparative failure, simply because the waste eats up the profits. Schools are not exceptions. Lack of promptness will soon disorganize any school. The teacher who bustles into his place five minutes behind the time he is scheduled to be in place has made a bad beginning for the day. Be in your place on the minute. You can not expect others to be prompt, unless you are prompt.

10. Make a workable daily schedule of recitations and follow it religiously. If the one you have is not good enough to follow in this manner, make one that is. A good daily schedule is as necessary to a school as to a railroad, and for the same reason. It is a protection against wrecks. To conduct recitations in any other than a scheduled way is certain to end in confusion, if not failure. When the time comes for the recitation, begin. When the time comes for it to close, stop. You have no more right to be tardy with your pupils than they have to be tardy with you, nor have you any more right to be tardy in closing a recitation than you have in opening it. You have no right to rob a class of one minute at the beginning of the recitation, nor have you any more right to rob it of its time after the time for closing the recitation. The same principle is true as to recesses and closing at the end of the day. It is well enough to invite a class to remain with you after school for assistance, but to hold a class arbitrarily beyond the schedule time, because you happen to be interested or think the pupils needs more attention, is not advisable. Besides, what apology can you make to the succeed-

ing class whose time you are taking unjustly? All this has nothing to do with detaining pupils after schedule hours to study neglected lessons.

11. Do not consume time with useless signals, but require that necessary signals be obeyed promptly. Do not make the mistake of banging on a bell or of counting for pupils to do everything but breathe. Wherever two or more people are assembled there must be some little formalities not necessary to any one when alone, but reduce your formalities to a minimum.

12. Do not waste time sending a pupil to a blackboard to scribble or to scrawl for five minutes writing what he ought to tell you and the class in less than one minute. And do not make the mistake of sending six or eight pupils to the blackboards to work on as many different problems or exercises, when the whole class is interested in each problem, or ought to be, except for mere practice.

13. Do not waste time having pupils unnecessarily copying anything from blackboards into note books. Blackboards and note books are excellent helps in teaching, if they are properly used. When misused or over-used both are hindrances. Thousands of hours are wasted by pupils copying useless matter into note books. Putting a whole class to copying from a blackboard is a device of a lazy or unprepared teacher to avoid a recitation, and it is a crutch upon which the ignorant teacher leans. Before giving a class anything to be copied, be sure that it is worth while, and that the pupils are going to get the worth of it. There is absolutely no other school exercises less inspiring or more dulling to pupils than the constant copying of all kinds of matter into note books. I have known reputable high school teachers to require their classes to spend hours during the year copying into note books matter contained in books which were accessible to every member of the classes. This is little short of an outrage. A note book ceases to be a note book when it becomes a transcript book. A note book is a book of mere intelligible jottings, or headings, or comments to aid the memory in recalling certain data, occurrences, or references.

14. It is fascinatingly easy to waste time having history pupils trace maps or fill in outline maps. Stop long enough to find out just what benefit your pupils are to derive from this fascinating exercise before you require it. What has a pupil gained from tracing or filling in an inferior map, when he has

an accurate map on the wall of the schoolroom or in his text-book? Instead of this waste of valuable time teach pupils how to read or interpret a map, whether historical, political, or commercial.

15. The dictionary habit is a good one for pupils to form, and the library habit is good. You need to cultivate in your pupils both habits. However, I would not advise you to send a class or a pupil to the library to look up some insignificant information which you could easily give in one minute. Life is too short and time is too valuable.

16. The better your teaching the less need you have for formal examinations and written tests. Teach only such things as have some real value to your pupils at their present stage of advancement. Do not waste your time and theirs teaching them something which may be of value to them two or three years hence. Wait until that time arrives. When you have taught a useful thing use it frequently enough to make it the common possession of the class. Every pupil ought to be taught how to marshal his knowledge of any subject in good order on paper, but one pities the class that must be formally tested or examined every four or six weeks.

17. Do you ever find yourself correcting over and over certain mistakes of certain pupils or groups of pupils? If so, what is the reason? Think this over. Mere repetition does not invariably bring results.

18. Not a few pedagogical crimes are committed in the name of thoroughness. Do not wear a subject threadbare by droning over it to the disgust of even your best pupils. On the other hand, do not skim through a subject touching it in only high places, depending upon reviewing it. Pupils soon come to expect all subjects to be reviewed, and never take any subject seriously. To go over the same book or subject several times invites the habit of careless study. Train pupils to master a subject as they go. Let them understand that they are expected to do a thing thoroughly, if the thing is worth doing.

19. Few things serve a teacher better than the ability to take an accurate measurement of himself. Fortunate is the one who knows his capacity and his possibilities, and knows equally well his limitations and his weaknesses. This knowledge is his anchor when he is tempted to undertake impossible things, or when he is tempted to apply for or to accept a position beyond his ability

to fill. A high-class teacher or principal or superintendent might easily find a position whose demands he could not fill. It does his judgment and good sense credit for him to admit it frankly.

20. This is an era of big things. Almost everything little has fallen into disrepute. The reputable college apes the great university, the little college apes the big college, the city high school must follow in the steps of the college, and the village high school in some things seems to try to outdo the college. Few things in the experience of a school man try his patience more than the grandiloquent performances of some little high schools under the spell of a pompously inclined teacher or principal. When one hears high school pupils referred to as juniors and seniors, learns that these pupils are lectured to, that they do research work, and prepare reports on investigations, he longs for a return to the good old days of pioneer simplicity.

21. I would urge teachers to avoid all manner of extremes. Do not subject yourselves to being regarded as odd, fanatical, or what is vulgarly called a crank or a faddist. Do not ride a hobby. Whenever a teacher gets on a hobby, takes up some fad, or becomes a monomaniac of any kind, he at once loses his influence among thinking people, and even his wisdom is accounted unto him as some whimsicality.

22. Teachers, do not permit yourselves to get into a rut. Do not think that the last word has been uttered on any subject, and that you have learned that word. Keep your eyes open and your mind open to things that are slowly being revealed to us through research, investigation, experiment, and patient toil. Listen to all that is reasonable, test everything before adopting it, accept a new thing if it proves worthy. Keep your heart warm by keeping in sympathy with adolescence. Red-blooded, vivacious, romping, impetuous, but strong and open-minded boys and girls need your sympathy and are worthy of it. They are the best asset the world will ever know.

ENGLISH.

It would seem scarcely necessary to offer any argument for a diligent study of English throughout the full term of four years in an American high school. Yet, a respectable number of reputable teachers have advocated the teaching of the essentials of English through some foreign language, especially the Latin.

Even now a school visitor frequently hears English teachers referring pupils to their Latin in matters of English syntax and parts of speech. Not a few other teachers neglect the systematic study of English, depending upon their pupils vicariously absorbing a knowledge of English through their reading and their study of other school subjects. However, the indisputable value of a painstaking study of the mother-speech has taken permanent hold upon the minds of almost all thoughtful teachers and laymen.

No other high school subject is richer in content and disciplinary value. It is doubtful if any other language, living or dead, contains more of the world's best thought and richest experiences. The treasures of history, biography, science, philosophy, art, and pure literature are the reward of the earnest student of English. Its content is a mine of wealth. Besides, its richness of vocabulary, variety of diction, and flexibility of syntax combine to make the study of English inferior to that of no other language as a disciplinary subject. Prof. F. C. Woodward boldly declares, "English asks no odds of the classics, even in a comparison of respective disciplinary values." The growth, development, and adaptability of the English language are little less than marvelous. English has not hesitated to enrich itself by laying tribute upon the best to be found in all other languages, and it has probably thereby made the nearest approach to a world language.

Among those in a position to judge, there is a strong conviction that English in the high school is taught as unsatisfactorily as is any other subject. Admittedly there are some difficulties in teaching it. A living language is a growing organism, continually taking on new words, admitting new idioms, and establishing new standards of excellence, and at the same time it is continually casting off whatever has become obsolete. In all these particulars a living language presents to the teacher difficulties not encountered in teaching a dead language, fixed in its vocabulary, syntax and standards. Besides, a language of as few inflections as the English does not lend itself readily to being taught in the same way in which a highly inflected language is usually taught. To these difficulties inherent in the subject itself must be added the indefinite aim which characterizes the work of many high school teachers of English. Aimless teaching is fatal to success anywhere. A close examination of

many English courses in high schools sets one to guessing as to their ultimate object. The selections and their articulation show little organic relationship or sequence. Caprice seems to be the only guide in constructing these courses. The secondary importance heretofore attached to the teaching of English is largely responsible for the delay in organizing better courses in the subject, and for the lack of better methods of teaching it.

Moreover, the teaching of the vernacular has been further retarded by a feeling on the part of both teacher and pupil that in some way or fashion everyone will manage to make himself understood by his fellows. Even teachers seem to fail to appreciate the fact that language is the vehicle of thought, and that the only way by which thought can be accurately and exactly given by one person and received by another is through a fixed medium. A pupil can not make a perfect recitation in history, algebra, geometry, or any other subject, unless he uses accurate language as to words, syntax, and idiom. Nor can a teacher make a perfect presentation of any matter except in accurate language. Will your school, your class, and your teaching stand this test?

I would dislike to say that every teacher in the high school should be held directly responsible for the English of the pupils. But it is reasonable to say that every teacher is expected to require his pupils to make their recitations in all subjects in reasonably accurate standard English. And, since practice is superior to precept in teaching, it is not extravagant to say that pupils will get as good training in accuracy in speech in the geometry recitation as in the English recitation. However, whenever the pupil is in doubt in his use of English he must go to his court of appeal—his grammar, his dictionary, his composition manual—for authority. On the other hand, the teacher of English will meet a Waterloo, if he depends upon overcoming the slang of the street, the colloquialisms of the home, and the provincialisms of the neighborhood with the rules of grammar and rhetoric as his only weapons.

In chapter II of Chubb's *The Teaching of English*, the author discusses some of the difficulties encountered by the schools in teaching English. He makes these pointed observations:

"The fundamental fact to be borne in mind in this connection is that good speech is a habit, a point of social manners. It is,

we urge, too much to expect that the habits enforced for a few hours daily in the schoolroom (Saturdays and Sundays and holidays and long vacations excepted) shall prevail against contrary influences affecting the child during the greater part of his daily life. Why is it that the average English or German or French child speaks and writes his native tongue more correctly and pleasantly than the average American child? The principal (though not the only) reason is to be found, not in the better and more laborious teaching in the schools, but in the higher standard of social manners. We lack linguistic conscience and linguistic pride in this country. We do not attach to illiteracy the stigma that attaches to it abroad—a stigma that money, dress, ostentation, can not atone for. Until with us also to be a gentleman is, as a first essential, to use gentle speech, we shall not cure, we shall but cauterize, illiteracy. Hence, it is that, viewed in its large aspects, the problem of illiteracy is not so much a school problem as a problem of American civilization.”

SPELLING.

Spelling is one of the fundamentals in the study of English in the high school. No amount of scholarship as to the other factors will fully atone for bad spelling. Bad spelling is ignorance in something vital. In many schools spelling above the grammar grades is either neglected or poorly taught. A writer recently went so far as to say that he had seen many teachers testing spelling, but that he had seen few teaching spelling. It is to be feared that others might justly make the same assertion. The general public criticises somewhat harshly the high school graduate and the college graduate in the matter of spelling. No doubt both are a little weak. How much are the schools at fault in the matter?

In the first place, most of us use inferior material in teaching our classes in spelling. Spelling books are to be counted by the score, and yet there are comparatively few suited to the real teaching of spelling. The lists of words to be spelled are made up of three classes: 1. Those which the pupil uses in his spoken and written language and long ago learned to spell; 2. Those which he is just incorporating into his vocabulary and needs to learn to spell; 3. Those words yet far beyond his vocabulary and for whose spelling he has no need at present. Only the second named class is suitable material for him now. What need has

he for the third class, or why should he be droning over the first class? We have among us a few laymen and an occasional teacher who tell us with much positiveness that if we would but return to the use of a certain spelling-book of by-gone days, we would solve the spelling problem. It did not do so when it was in use among us. An examination of that revered book will convince anyone that more than half of the words in it belong to the first and third classes of words with respect to the pupils who are supposed to use it with such great profit.

Every pupil has an "expressional vocabulary" and an "interpretational vocabulary." One is the vocabulary used by the pupil, and the other is the vocabulary he understands but does not yet himself use. As his expressional vocabulary grows, his ability to spell its words should grow apace. What need has the pupil to learn to spell words he can not use? Why not defer the spelling of such words until the time at which he begins to need them? Is it not rather poor pedagogy to have pupils spelling words even whose meanings are unknown to them, and to neglect to teach them to spell the words of their every-day vocabulary?

In the next place, is it true that we simply test a pupil's ability to spell, instead of teaching him to spell? The charge is rather serious. Are we guilty? In many high schools I have observed about this procedure: A certain group of words for the next recitation is assigned without instruction, suggestion, or comment; the next day these words are given to the class to be spelled on tablets; the papers are exchanged and the teacher goes through the list spelling each word correctly, while each pupil notes all the errors on the paper in his possession; at the end of this performance each pupil calls out the number of mis-spelled words on his own paper or on the one in his possession, while the teacher takes note of the number of mistakes. Often the recitation ends here with a similar assignment for the following day.

At this point two pertinent questions arise: 1. What step was taken to teach that lesson at the time of its assignment or on the recitation? 2. What has been done to insure against these same words being misspelled again and again? True, some teachers attempt to correct the spelling of these words by requiring each pupil to write correctly each misspelled word ten, twenty, and even fifty times. This repetition will make some

impression upon the pupil who rarely misses a word, but with the one who regularly misses words it is all but worthless as a corrective measure. He may write the word correctly fifty times at one sitting, but when he comes to write it the fifty-first time he is likely to make his old mistake.

The spelling of English words is not a matter of rule, but a familiar knowledge of at least three rules of spelling will be of untold value to the high school pupil. These are (1) the rule for dropping the silent *e* at the end of a word when taking a suffix, (2) that for doubling the final consonant of a word when taking a suffix, and (3) that for changing the final *y* into *i* when taking a suffix. Very few of the other rules for spelling are of much value to pupils. In some cases the number of exceptions to the rules is as great as the number of words covered by the rules. In other cases the pupils have difficulty in applying the rules.

Suppose that in the lesson above referred to had been found the words *continuing*, *peaceable*, *courageous*, *greenish*, *marriage*, *moneys*, *acquitting*, *equipage*, *boring*, *benefited*, *whining*. Instantly the pupil familiar with the three rules just mentioned would have known the spelling of each and the reason for it.

In teaching such words as *until*, *lose*, *siege*, *coarse*, *cite*, *proper*, *already*, *seize*, *tyrannical*, *fiery*, and many more like these, rules can not be depended upon. How do you teach such words? Do you wait for the pupils to absorb them, or do you depend on having each one rewritten ten times every times it is misspelled?

As a spelling-book, the dictionary is the poorest book a class could adopt. The dictionary is a reference book and not a class text.

READING.

The ability to read intelligibly and readily is the very foundation of thought-getting. Without that ability one is helpless among books. Exceedingly few pupils bring to the high school an ability to read that is at all commensurate with their advancement in books. Most of them are unable to take in at a glance the full meaning of even a short sentence. Even the ability to select quickly the subject and predication out of a number of modifiers is beyond many pupils on entering the high school, and even later. To all such pupils many of the state-

ments in history and science have no meaning, because the pupils can not grasp the meaning. Problems in mathematics are obscure to them for the same reason. Whenever a high school pupil begins to give evidence that he is failing to grasp the subject matter in his textbooks, the teacher should at once take steps to see if he can read intelligibly.

In the schools of today the child spends the greater part of the first three years being taught to read. During the next four years of his school life so many other subjects are crowded upon him that his reading is neglected often to his irreparable hurt. By the time the boy reaches the high school he is confirmed in a kind of inflectionless grunting or growling of sentences for reading, and the girl gives out a monotonous whine in a falsetto key. To correct these faults there is but one thing—*teach reading*. To do this requires time, patience, persistence, and skill intelligently directed. Pupils must be trained to read aloud and to read silently. Let me hasten to say that by training to read aloud I do not mean what is usually called elocution. Helpless school children need the strong arm of the law to protect them against such torture. Corporal punishment is more humane. Learning to read, like learning to talk and to sing, is very largely a matter of imitation. If a teacher hopes to teach his pupils to read aloud well, he must give his pupils good models in reading. A superficial study of qualities of voice, pitch, inflection, modulation, and the like, will not make a good reader.

Silent reading is a matter of eye and brain; reading aloud is a matter of eye, brain and voice. In silent reading the reader is concerned with seeing the printed thought before him. He must have such a ready grasp of words and language structure as to be able readily to interpret what he sees. If he does not know the meanings of the words, or fails to get the meanings as revealed in the structure of the sentences, or is unable to relate thoughts in different sentences, his reading is either seriously crippled or a failure. "The thought is one thing and reading is a sensing of this one thing."

In reading aloud the pupil has the added task of controlling his voice so as to convey the sensed thought to the mind of his hearers. The use of the voice means the intelligent and accurate adaptation of his voice to the thought to be conveyed. Skill in this art requires practice, and it is taught by means of models

by the teacher. A clean, clear-cut enunciation of words, the generally accepted pronunciation of words, without pedantry or affectation, and a soft and resonant voice are excellent beginnings for good reading. Good reading aloud is at once an enviable accomplishment and a valuable asset.

GRAMMAR.

Around no other subject have more unprofitable discussions clustered than around English grammar. One set of controversialists has claimed for grammar almost everything; another set has inveighed against it; still another set has openly declared that the English language has no grammar. Lindley Murray defined grammar as teaching the "art of speaking and writing the English language with propriety." Grammar came to be looked upon as the panacea for all linguistic ills. Pupils were set to work memorizing abstract definitions, learning rules not applicable to English at all, and devoting hours and days to parsing page after page of *Paradise Lost*. The results were sadly disappointing. The process did not give us pupils who spoke or wrote the English language with propriety. What was to be expected came—a reaction. Of that reaction Prof. Baker, of Columbia University, speaks thus:

"There was for many years a reaction against the study of English grammar. This reaction seems to have been the result of several causes: (1) The instruction was begun too early, and was therefore both meaningless and over-difficult; (2) The treatment was made mechanical to the point of degenerating into mere rote-work; (3) There was a growing recognition that much of the subject was not in reality English grammar at all, but Latin grammar badly fitted to the English; (4) The claim commonly made for the study, that it led to the correct use of English, was entirely contradicted by facts, since many good students of grammar used bad English, and many who knew no grammar used good English."

The reaction against the study of grammar was justifiable, and out of the controversy have come a clearer conception of the aim of grammar, a better agreement as to its place in the curriculum, the evolution of somewhat better methods of teaching it, and a slightly improved type of textbook. The most important of these is the clearer conception of the aim of grammar—important in itself and important in its relation to the other three.

Mr. Chubb thus summarizes the present conception of the aim:

“(1) We have finally abandoned the old view, which regarded grammar as the art of correct speaking and writing, in favor of the view that grammar is the science underlying that art,—a knowledge of which aids the art, and is evolved in the conscious elaboration of its principles and technique. An art, however, is taught by practice; and the main pedagogical factor in it is imitation.”

“(2) We are freeing ourselves from the tyranny of Latin models, and are substituting a grammar that deals simply with the actual facts of the English tongue, and recognizes how widely it differs from a highly inflected tongue like Latin.”

“(3) We have come to recognize the necessity of following a different method, for insuring a conscious mastery of our native tongue, from that employed in mastering a foreign tongue. In the one case the method must be mainly inductive and analytic; in the other, mainly deductive and synthetic. In the one case we are systematizing and rationalizing the data in our possession; in the other, using the rules that are the outcome of systematization, as short cuts to the facts.”

Although there has been improvement in both the textbooks and the teaching, neither can be called perfect or even satisfactory. The writers of English grammars seem unable to free themselves from Latin grammar models. Most of them ignore the fact that the English language of today does not conform to Latin grammar. They seem to try to make the student forget that English grammar deals with *function instead of form and inflection*. In most of their textbooks the declension of the noun and the conjugation of the verb are almost as elaborate as are to be found in Latin grammars. Select the root-form in each, strike out every uninflected form masquerading as inflection, and see what a pitiable skeleton is left. Yet, high school students are cajoled, threatened, and compelled to learn these fictitious distinctions.

There is another type of textbook writer even more wedded to the sacred past. He is not satisfied with holding on tenaciously to the embalmed Latin models, but he insists on resurrecting a few that had already been piously put away in the language cemetery. To change the figure, he insists on gathering up the barnacles which English grammar has cast off and trying to re-attach them. If such a writer chooses to write a historical

grammar, and to show what once was true, what has been cast off from the language, what has been added to it, and what the language now is, let him do so. He will have done a service, and that service will be highly acceptable. But I protest that he has no right to attempt to reattach to English grammar what does not now belong there. It is the grammarian's business to record what the language is, not what he would have it be.

A close comparison of the contents of a dozen English grammars of the same grade, say high school grammars, makes you feel disposed to accuse the whole group of writers of plagiarism and a disregard of the copy-right laws. These grammars seem to have been made by the scissors and pastepot process. No thought of plagiarism was in the mind of any of them: the writers were simply unable to break away from traditional models. What these writers do in this matter would be no concern of ours, were it not that our schools and our pupils are burdened with the useless impedimenta of which their books are so full.

Teachers are going to continue to teach the dead things retained in our English grammars so long as such grammars are written, published, and sold. A great many teachers would be unable to break away from these worn-out traditions and blaze a way for themselves. They were taught these traditions, and they will continue to teach them. There are other teachers able to blaze a better way and willing to break away, but they fear to take the risk. It is little wonder that high school teachers are slow to enter the "dead works" of English grammar. When they are examined to be certificated to teach English they are tested on dead things. Besides, they know that their pupils must stand examinations on dead things for entrance to a great many colleges.

Dr. Patterson Wardlaw, of the University of South Carolina, a man of fine scholarship and unusual poise between conservatism and aggressiveness, has written a direct, sensible, and helpful little brochure of 13 pages entitled *Simpler English Grammar*. Here are a few extracts:

"No school study stands more sorely in need of being purged of 'dead works' than does English grammar. I maintain that this subject, as currently treated, is cumbered with a large amount of matter that has no value for the practical use of the language or for the understanding of its facts."

"Grammar should be a descriptive science. It is concerned with usage, and what is not perceived by eye or ear is not a matter of usage. The business of grammar, then, is to describe the actual observable facts in the structure of the sentence, and to explain how these sensible facts are means of expressing the thought. True, this explanation requires an understanding of the thought-relations expressed, but the knowledge of the thought-relations is the condition of the grammar rather than grammar itself. The grammar of any language is concerned with them only so far as, in that language, different forms are employed for their expression."

"The most frequent complaint against English grammar is that it is an imitation of the grammar of Latin. One could wish that this were true so far as the spirit is concerned. Latin and Greek grammars grew up under the hands of great scholars, who were eager to know and content to describe the usages of these tongues exactly as they existed. These men knew no superior grammar, and hence approached the subject with no preconceptions. They found employment enough for all their acumen, and so had no need to import or invent difficulties for the exercise of their scholastic skill. They made grammars, and (what is perhaps more to the point) the market bought grammars, as means of learning Latin and Greek; not for mental exercise. The opposite, in most respects, can be said of the work of those who laid the ground plans of the grammar of English. Much that is in it today is there for no better reason than that it was in the Latin grammar. A part of the remainder seems to have been introduced merely to gratify a taste for scholastic subtlety. It is an error to suppose that the breed of schoolmen passed away with the middle ages."

The confusion in grammatical nomenclature has become an almost unbearable nuisance to both teachers and students. For grammars to disagree on nomenclature because they disagree on interpretation is vexatious enough. To disagree by applying a different nomenclature to the same interpretation, or to the same thing, is exasperating. Pupils become hopelessly confused from the promiscuous and interchangeable use of such terms as *dependent sentence*, *dependent clause*, *subordinate clause*, *attributive clause*, *substantive clause*, *adjective clause*, *adverb clause*. Dr. William Gardner Hale, of the University of Chicago, has this to say of the present situation :

"The present state of affairs, at any rate, is bad. . . . So great a variation of terminology has nowhere else come into existence as in the grammar of our mother tongue. The result is confusing to the student as he changes books in passing from year to year, or perhaps from school to school. It is confusing to the teacher, since he often has to deal with a number of students trained to a different terminology from that of the rest of the class, or even to change his own terminology as one publishing house after another gets the upper hand in the struggle for the sale of books."

Committees of national and international importance have been at work for about ten years on preparing a simpler and saner terminology for the grammars of English and other languages. To date nothing permanent has been accomplished, and nothing very promising has been offered.

Suggestions.

1. Just how much knowledge of formal grammar the pupil should bring with him to the high school is a debatable question. Just how much he is going to bring is more easily settled. He ought not to be expected to bring much. "Grammar is not milk for babes" was a favorite saying of the late Dr. Joynes, and few men, if any, understood better the appropriateness of the remark. Grammar is logic, if anything. It must be attacked with zeal, vigor and determination, if it is to be mastered. Nothing short of unceasing and well directed efforts will bring fruitful results. Dr. Synder, of Wofford College, says, "I believe that there must be an unremitting drill in theoretical and practical grammar. I count the disrepute into which grammatical drill has fallen in our secondary schools a distinct loss, for which superficial flower-peeping and nature-faking are far from being compensatory absorptions of the time of the pupil."

2. A total of not less than one year's work should be given to a rigorous study of grammar and its applications to spoken and written composition. To study grammar as an isolated and independent subject soon becomes tiresome. It should be pursued in close relation to the composition and the literature. For these reasons teachers are advised against a custom that is very prevalent in high schools—that of divorcing grammar from the study of composition, giving it daily recitations as an isolated subject, and confining the study of grammar to the first year of the high school. In this way the subject is reduced to abstract

logic, studied by immature pupils, then dismissed. It is better to distribute the grammar study over at least two years, if not longer. In fact, grammar study can not be entirely abandoned as long as the student studies the language. It is a court of appeal to which he is constantly referring matters for decision.

3. Within proper limits, parsing is a profitable and necessary school exercise. Beyond these limits there is no other exercise more uninviting and barren. To label, classify, and pigeon-hole the words of an intricate sentence require discrimination and keen judgment. The value of such procedure is limited. Beyond this limit the profits are too meager. Sorting, labeling, and packing garden seeds do not insure the making of a successful gardener. "In parsing, turn attention to distinctions that correspond to actual differences of form or construction. Unless a pronoun is concerned, the gender of *horse* is as irrelevant as the size of *colt*," says one of the authorities already quoted. No less an authority than Dr. Joy nes asserts that gender is practically no longer in English grammar except for the pronouns *he*, *she*, *it*. Then, why waste time giving the gender of every noun? Are we studying grammar or anatomy? Moreover, if we insist on going back to sex every time we come to a noun, we must admit only two. It would follow that we have gender-nouns and genderless-nouns. Therefore, we are limited to the masculine and feminine genders. In our elaborate parsing we refuse to abide by our anatomy, and insist on masculine, feminine, neuter and common genders.

4. The analysis of sentences is a more profitable school exercise than parsing, but even this can be emphasized out of all proportion to its value. The analytic side of language study must not obscure the synthetic side. The only analysis that is of value is the analysis of the thought contained in the sentence. It is highly important that pupils be helped to acquire a sense of order and completeness in a sentence. Pupils of fair minds are often totally unable to appreciate the fact that a given sentence is incomplete. I might here reproduce a hundred such sentences which I have picked up in the classroom during the past few years. Another important thing for pupils to learn is, to grasp quickly coordinate and subordinate relations of words, phrases, and clauses. Unless they can do this, the meaning of a sentence often escapes them. In the analysis of sentences, do not waste time separating the *grammatical subject* from the *logical subject*,

and the *grammatical predicate* from the *logical predicate*, or culling the *simple subject* from the *complete subject*. Such a performance shows that we have missed the mark as to even the meaning of the subject of a sentence and its predication.

5. Do not be afraid to use a diagram because you happen to have heard diagrams derided. Derision is often cheap. If you see that by picturing the relation of the parts of a sentence to your pupils you can better teach these relations, have the good sense to use a diagram. Please remember that you are not advised to go regularly into the picture business. Do not wear the diagram out, or devote too much time to making elaborate drawings upon which you may hang your sentences. Besides, remember that the diagram is the teacher's tool, not the pupil's. The pupil gains nothing by diagraming a sentence for the teacher, unless he is teaching the teacher.

6. In parsing and analysis, do not touch the complex sentence till the class has fairly mastered the simple sentence. To do so may be "logical," but it is not practical.

7. Giving false syntax to pupils for correction was once very fashionable, and it has not yet gone altogether out of style. To give to pupils their own bad diction is entirely proper. They make these mistakes either because they know no better or they are careless. They must be made uncomfortably conscious of their errors before they will abandon them. But, to give pupils for correction the mistakes of others is unpedagogical and unwise. What possible benefit can accrue to a pupil from correcting an error in speech which he never makes and perhaps never hears? Not only does he get no profit from it, but he may be exposed to injury from it. Moreover, when the average pupil is asked to correct sentences anywhere, he makes his corrections by making changes somewhere.

8. Do not be misled into regarding English as a grammarless language. English has a grammar as clear-cut and as logical as that of Greek, Latin, or German, but it is far from identical with any of them. Why prostitute its richness, its flexibility, and its distinct individuality in a futile effort to make it what it is not? We frequently hear certain teachers assert with great assurance that they never learned English grammar until they learned it through Latin grammar. Are these teachers sure that they have learned English grammar? Certainly they are not the same thing. These are the teachers who would tear their hair

in despair and indignation, if one of their pupils were to give the sentence *rex faciunt* in the Latin recitation, but will listen all day to *the king don't* without the least compunction.

9. Finally, fellow teacher, you teach far more by example than by direction. It matters less what the books say do than what you actually do. If your enunciation of words is faulty and indistinct, your pronunciation faulty or pedantic, your reading aloud poor or unnatural, or your diction a contradiction to good usage, your success is limited. If everything with you is *awfully cute, darling or gorgeous*, or you are constantly *dying* or *crazy* about something, you need not look for great things to come of your English teaching.

COMPOSITION.

The ability to shape one's thought into logical sentences, then to link these sentences into a telling and pleasing order is indeed a fine art. The resultant is composition, whether conversation, recitation, public address, letter writing, newspaper reporting, or theme writing. To produce any kind of composition, oral or written, the speaker or writer must have material with which to work. He must have some thought material, some command of words in which to clothe his thought, some knowledge of sentence structure, and some knowledge of the art of linking sentences together in that telling and pleasing order. To acquire skill in composition requires persistent effort, untiring patience, and studious attention to details, on the part of teacher and pupil. Once the skill is acquired the possessor will never begrudge the time or the pains. An occasional pupil of exceptional language sense reaches a standard of excellence with less than the customary labor and effort, but most persons who have acquired skill in composition have done so after prolonged effort and repeated trials. However, any pupil of average capacity can, with care and diligence, become reasonably proficient in oral and written composition. Let no pupil be discouraged.

As a rule, there is no other school exercise less enjoyed or more dreaded by high school pupils than composition writing, and it may be truthfully added that the product is not very flattering to the pupils or their teachers. There must be some sufficient reason for the attitude of the pupils toward composition writing, and for the unsatisfactory results. Unquestionably pupils bring

to the high school some thought material gained from their observation, their experiences, and their reading. They have acquired at least a small, accurate vocabulary with which to express their thoughts, and they certainly bring with them a willingness and a readiness to talk about the things they know and the things which interest them. Then, why should they become so nearly paralyzed when asked to write?

Is it not more than probable that we approach the teaching of composition in the wrong way? Any teaching to be good teaching must be on the plane of the pupil's ability and experience. Teaching below that plane is puerile; teaching above it is barren. How many of us teachers realize that the ultimate success or failure of our composition work is deeply rooted in the English of the daily recitations, to say nothing of the English of the playground? Is there not frequently too great a chasm between the informal oral composition of the recitation hour and the formal written compositions required at stated intervals? Does the pupil in the high school feel that there is any intimate relationship between his oral composition in daily life and his formal written theme? Does he feel that in his every-day conversation he is consciously or unconsciously making an effort to choose his words, to watch his sentence structure, and to arrange his sentences in a telling and pleasing order? All these things depend largely upon the accuracy of the English used by the teacher and the pupils in the daily recitations. The teacher who permits himself to violate the canons of good English and permits his pupils even wider range in the school exercises day after day, need not be disappointed if his pupils make poor progress in composition.

The pupil who can spell readily and accurately the words of his vocabulary, and can put his thought into ordinary sentences grammatically correct, is ready to be taught the art of composition. He can be taught how to link two sentences together without a jolt or a jar, and how to make the thought in the second sentence progress beyond that in the first sentence. In the same way the third, the fourth, and still other sentences may be added, always keeping the current of the thought moving forward. In the same manner the paragraph is built up, and so on until a short theme has been composed.

Most of our composition teaching, I fear, has two serious weaknesses. We take too much for granted as to the pupil's stock

of thought material and his ability to think, and we try to teach composition by beginning with rules for writing. A pupil can not commit to writing thought until he has acquired the power to think—a stock upon which to draw. To expect a high school pupil to sit down and coin thought snacks of the visionary. His experiences and his observations are limited. His thought range is inside these. As a pupil thinketh so will he write. Time and time again I have seen pupils wrestling with the “framework” of a theme when they had no material to put on the framework. The most pathetic part of the situation was the teacher’s inability to see where the trouble lay. In his ambition for bigger things he overlooked the foundation for big things.

The close observer of work in our high schools must be impressed with the thought that in composition we attempt to go beyond our limitations. Much of our work is ill-suited to the age, advancement, and experience of our pupils, and is consequently artificial and frothy. Instead of teaching boys and girls to use their mother-tongue with comparative ease and accuracy in their every-day affairs, we seem to be attempting to make essayists before they are eighteen. They are put to studying the paragraph before they can handle single sentences, and are put to work on themes before they have learned the function of the paragraph. It is too much to expect a pupil unable to subordinate at will one thought to another in a single sentence, to do much toward *developing a paragraph*, or to value *time order*, *space order*, or any other kind of order. To the unskilled pupil requiring an effort to arrange four or five sentences in a paragraph, *development of details*, *main incidents*, and *proportion* are deadening. *Clearness*, *coherence*, *unity*, and *emphasis* can not possibly mean much to a boy unable to distinguish between an indirect quotation and an indirect question. Narration and description are but names to a girl who strings together a half-dozen meaningless phrases and clauses and calls the medley a sentence. *Ascending interest*, *climax*, and *descending interest* are rather cumbersome tools for high school pupils. What permanent benefit, or even temporary stimulus, do figures of speech give to a pupil with a hazy notion of the literal meanings of ten per cent. of the words he meets in his work? Textbooks in Composition, Rhetoric, and Composition-Rhetoric, suited to college freshmen and sophomores, have not proved successes in the high school. Much in these textbooks and much of the teach-

ing from them are above the plane of high school pupils. How can we consistently expect a class to perform a task when its members are unable to interpret some of the language in which the directions for the task are given? It is difficult for some teachers to see that the quality of their teaching has nothing whatever to do with the degree of advancement of their teaching.

A certain teacher took pride in his formal composition teaching. *Framework*, *ascending interest*, and *climax* were familiar terms in his classroom. With pride he talked of what his pupils could do with composition. From an examination paper of one of his pupils I copied this sentence: "Shore lines are important as they are the outlet and inlet of continents and the fish and sand to make glass." This poor fellow happened to have no *framework* in his answer to a question in physical geography.

The frequency with which formal composition should be required is a question often asked. The frequency of these formal efforts is not nearly so important as the daily practice of having at least some members of the class to put on paper some short informal piece of composition, if not more than five or six sentences. An effort by the entire class to put into one compact paragraph the best summary of an important topic in yesterday's history recitation, a lively but correct narration of the last inning in yesterday's ball game, or a brief description of the preparations for the next day's picnic—such an effort will often accomplish more for the class than a set of formal compositions. The reasons are simple enough. These topics come within the range of their experience, they have for the pupils a personal interest, the topics are fresh in the minds of the pupils, and the pupils are not writing with a conscious dread of rules. Many good teachers rarely call for a formal composition from every member of a class at the same time. They make the writing and the correcting of compositions an individual and personal matter. On at least one point all are agreed—that composition work should be kept up uninterruptedly throughout the entire high school period.

Do not call for any composition, unless you intend to read it carefully, correct it carefully, and go over it carefully with the writer. You expect compositions to be written in good faith. Read them, correct them, and criticise them with the writer in good faith. Some errors are common to every member of the

class. These may be criticised and corrected before the entire class. But there are other errors which are entirely individual. Do not take the time of the class to discuss these; do that with the individual needing the correction. In correcting papers you are not displaying to the class your knowledge of composition, but trying to show each individual his errors and the way to correct them. At first the number of errors will be large. Center upon a few of the violations of ordinary decent composition, correct these one by one, then turn your attention to the rarer mistakes. Do not be too prodigal in the use of red ink and blue pencils. They have no special charm for the pupil struggling to whip his thought into presentable shape.

In connection with the grammar and the composition are the places to teach punctuation. It is a waste of time to study manuals on punctuation apart from the actual use of punctuation in sentences. A sentence is not complete until it is properly punctuated. It is properly punctuated when the punctuation makes the grammatical meaning clear and positive. That is the only use for punctuation.

But little rhetoric teaching can be done in the high school. Some of the simplest elements of the subject can be profitably incorporated with the composition in the fourth year. It is no uncommon thing for college students to inform you that they studied in the high school the same textbooks they are using in the college classes. In such cases somebody has erred.

I do not feel that I have discharged my obligation until I have warned teachers against a widespread practice that finally becomes a very serious matter in many instances. I refer to plagiarism. Do not get excited. I am not charging pupils with moral turpitude—at least yet, although it inevitably ends in that, unless checked. Do not tell me that your pupils never do it. They may, and they may not. Many do. Not often do pupils set about deliberately to plagiarize, steal, or call it what you please. On numerous occasions I have listened to high school pupils reading their compositions, or to teachers reading them with approbation, when I knew perfectly well that much of the thought and many of the happy expressions were beyond the range or ability of the writers. When a teacher comes to a gem of thought expressed in English that would do Macaulay credit, sandwiched among meaningless phrases and a medley of sentences, does he not at once realize that this gem is not on the

same plane of thinking or expression with the remainder of the composition? Does an observant teacher not soon learn the plane of thinking and expression of every pupil in the class? To be sure, gems above the plane of the writer are well enough, provided full credit is given to the quotation. An ambition to move on a higher plane than we are prepared to move brings us into bad ways, whether in living beyond our income or in writing above our resources. We use recklessly what belongs to others. Here is a pupil who is asked to write on some subject beyond his experience or understanding (and they often are); he wishes to make the best showing possible (and that is commendable); he is told to go to the library to read certain books or magazines (that is right and proper); here and there he is able to touch his toes to the ground, so to speak, but his task is for the most part far beyond him; he tries to work over certain passages into his own language, but they lose terribly in force and beauty; then he begins to steal both the thought and its clothing. Finally, he turns in his essay with evidences of his botched job sticking out at every corner. In some mysterious way it all gets by the censor, and the next thing you hear is that this pupil has been awarded the prize for the best composition. I am not dreaming.

LITERATURE.

It is doubtful if any other subject in the high school program of studies is capable of being made to the average pupil more fascinating or more valuable than literature, provided it is well taught. Literature deals with feelings, emotions, and ideals—the spiritual, as well as furnishing a training for the judgment. The ultimate aim of teaching it in the high school is to cultivate a taste for good reading. The test of a teacher's success in the subject is what his pupils do after they leave him. If his pupils actually read good literature and enjoy it, he has succeeded. If instead they read worthless trash and revel in it, or read nothing more substantial than the daily newspaper, or read nothing at all, the teacher has largely failed. When one scans the shelves of the book stores and the counters of the news stands, he is forced to believe that many of us teachers are not brilliant successes in teaching literature. The volume of trash and filth read in the name of literature by the people after they leave the schools, and even before, is appalling. Teachers can not be blamed for all of it, but we are missing the mark.

The first step toward the successful teaching of literature is to select matter suited to the age, training, and appreciation of your pupils. To blunder here is to blunder fatally. The wise teacher is not going to select what pleases him, unless he can make it please his pupils. Because he likes Shakespeare, Milton, and Emerson is no evidence that his pupils like them or can be induced to like them. The teacher often has set before him wholesome food prepared in an inviting way, yet he refuses to eat it, simply because he has no taste for it. The intellectual appetite of pupils is no less fickle or discriminating than the physical appetite of the teacher. Again, when a mother goes to the store to purchase a pair of shoes for her child, she fits the child not herself. Are we teachers as wise when we select our high school literature? Literature suited to 3rd-year pupils may be wholly beyond the appreciation or the understanding of 1st-year pupils. A 2nd-year class coming from cultured and reading homes may pursue with pleasure and profit a given piece of literature that would be but sounding brass or a tinkling cymbal to even 3rd-year pupils coming from illiterate or non-reading homes.

The College Entrance Requirements in English have served an excellent purpose in a good many ways, but these requirements have been too inflexibly interpreted by school people. In undertaking to prepare pupils for college entrance, teachers of English literature have forced some disastrous misfits in their schools. The colleges, too, have unduly emphasized the study and the reading of a select list of specimens, as if these were the only good literature obtainable. It seems that the time has come for a saner basis of selection of material and a better understanding between the college and the high school. The college is concerned about the preparation of the pupil to do his work after he enters; it is difficult for the common man to understand why the college should be at all concerned how the pupil has acquired his preparation. If the pupil carries with him to college a taste for literature, and a capacity to carry on his work, what concern is it to the college whether the pupil acquired these by studying Burke's Conciliation or Washington's Farewell Address, Macbeth or Innocents Abroad? When will the college professor and the high school teacher discover that a fifteen-year old youngster is not a piece of putty?

After what has just been said, it would be inconsistent to undertake to offer a list of suitable specimens of literature. How-

ever, a few comments may not be inappropriate. Shakespeare needs neither apology nor defense, but his name has come to be a word to conjure with, and the less a teacher knows about literature the more he works Shakespeare. Not a few teachers seem to think that they surrender all claim to teaching literature, unless they give much time to the bard. Nor is that the worst. They insist on teaching the most difficult of the plays. Little boys in knee trousers are put to studying Macbeth, Hamlet, and Othello, when they would be far better employed reading *Evangeline*, *Enoch Arden*, *The Prince and the Pauper*, *Treasure Island*, and *Christmas Carol*.

The second step in the successful teaching of literature is the manner in which it is taught. If literature is a fine art, teaching it is a finer art. One of the best teachers of literature I know can not tell you how he does it—but he does it. In logic one of the processes of arriving at a conclusion is by the way of elimination; before building a new house on ground occupied by an old one, the old one must first be torn down and the ground cleared of rubbish. In the manner of teaching literature let us first clear the ground of some rubbish. In the first place, most of us are too ambitious, and our judgment seems to be at fault as to our aims. Instead of being content with cultivating a taste and a thirst for good reading, we apparently try to make literary critics of our immature youngsters in the middle of their teens. Several years of high school visiting have convinced me that there is more froth, bombast, and artificiality in the teaching of literature than in any other two high school subjects. The subject lends itself rather readily to fancy, speculation, and individual interpretation. The teacher of mathematics can not indulge in mere opinions and speculations in dealing with the problems in his classes. He deals with inexorable laws and inevitable conclusions. He can not dismiss a knotty problem with his unsupported opinion, or some quotation from an irresponsible annotator.

There are a few teachers equipped to do good work, were they not infected with a yearning to be accounted connoisseurs in literature. They like to pass as persons of literary taste and acumen. Some of them have acquired some genuine literary taste, inspired by some good teacher, but without ever stopping to ascertain how such inspiration came to them or at what age it came, they try to communicate the inspiration to their pupils

by plunging them into literary criticism. Then there is another class of teachers, possessed of peculiar mental machinery, who fall into a species of fanciful speculation which they call interpretation. They live and move in a poetic zone, and read into Shakespeare's and Tennyson's lines what these worthies never thought of. They soon get the prigs and the sissies of the school to believe themselves somehow touched with a high order of genius. After a year or two of this kind of performance in a school, it will require at least two years more to bring these pupils down out of the clouds and to put them on safe ground.

All such teaching is merely putting a veneer of embellishment ahead of substance. This kind of teaching begins too near the top, instead of beginning at the bottom. The pupils are taken out star-gazing before they have a secure footing on the earth. The teachers require their pupils to poach on the literary preserves of the college professor. In fact, some of these teachers give their high school classes some of the work they themselves had late in their college course. When one hears a class of high school Waldos and blue-stockings interpreting and comparing Shakespeare and Tennyson and Browning, and analyzing Poe and Burke and Emerson, and critically discussing *plots*, *key-notes*, *incentive moments* and *climaxes*, he begins to be amazed. When he hears all the beautiful lines culled out and labeled, and hears all the memory gems recited and annotated, he is still more amazed. He wonders how long it will be before higher criticism will reach the elementary grades.

In many schools there is a strong and unfortunate tendency to overload pupils with literature. Not infrequently one hears teachers talking about saturating their pupils with good reading. Whenever I hear the word saturate I can not help thinking of a sponge. To surfeit anybody with anything, no matter how good in itself, is to court a reaction. Has the saturating process brought us satisfactory results? Go to almost any book store, make an inventory of what you see, then draw your own conclusions. For every substantial, wholesome book sold you will see a half dozen of the sentimental, shady, and worthless types snatched up. Is there not room for suspecting that many of the buyers and readers of these latter books were saturated to their disgust by their over-zealous teachers, and are now indulging in a respite?

Books are excellent things. So is bread. Wholesome bread and wholesome books, in proper quantities and at the proper time, nourish and give strength. Either needs to be properly prepared and served, and neither will nourish, unless digested and assimilated. People who read all the time have no time to think, and even less to act. The man who does nothing but read has little more to be proud of than the man who does nothing but play chess. Reading to be valuable must be well chosen, and must be followed by periods of reflection.

Rapid reading is more than an accomplishment, if accuracy is not sacrificed. However, the high school age is not the time to cultivate rapid reading. Pupils of this age who read rapidly usually read carelessly, and careless reading will finally injure, if not destroy, the studious habits of any pupil. Most students are naturally careless enough in their habits of thought, without encouraging them to become worse. Skimming through books in a careless way will soon make any student unwilling to sit down deliberately to prolonged and sustained effort to go to the bottom of any difficult question. Rushing classes through many books may be a kind of grand-stand play, but it will not win games.

The human voice has no superior as an instrument in teaching literature. I do not mean tragic or histrionic vocal capers. The most tragic thing about such performances is that it is little above low comedy. I do mean that a clear, well-modulated voice, under good control, is an instrument of power in the hands of any teacher. Of course, behind this voice must be a mastery of the matter read. Simple, artless reading makes a powerful appeal to the hearer. If the hearer also is able to respond with good reading, the recitation hour is one of unalloyed pleasure. Now, good reading is taught not by directions but by imitation. The teacher must furnish the models. Dr. J. C. Metcalf, of the University of Virginia, has this to say:

"I have sometimes found that the only way to arouse interest on the part of certain young people in literature and to win an intelligent response from them has been through oral interpretation. To many a boy or girl a poem or a play means nothing on its face; the thought may be too subtle and the artistic form too refined for their understanding and experience. . . . I advise all teachers of literature to read poetry aloud for their own enjoyment, first of all, and then for the enjoyment of their pupils. They never forget the teaching of a teacher who can

read well. . . . Poetry and all forms of really artistic prose should be both seen and heard from the teacher and from the pupil. I do not mean that the teacher should spend all his time in reading to pupils. As good as written exercises are, we have, I fear, overdone this phase of our teaching and left undone the training of the human voice as an instrument of literary appreciation."

Finally, I would advise teachers strongly against consuming valuable time in the vain endeavor to teach the history of literature to high school pupils. The history of literature is inextricably interwoven with the big movements of history, and is, therefore, beyond the comprehension of the pupil of the high school age and training. It is farcical to call the little biographies of writers the history of literature. If you feel that you can use one of these little manuals with profit, do so, but classify it as biography supplementary to the history.

Helpful books:

Carpenter, Baker & Scott's *The Teaching of English*. Longmans.

Klapper's *The Teaching of English*. Appleton.

LATIN.

Latin is unquestionably an imperial language. It was one of the first subjects to be accorded a place in the secondary school curriculum. It has fully justified its right to a permanent place there. Its value is almost universally recognized and admitted. There is little danger of its being relatively undervalued. For centuries Latin had few rivals in the curriculum. It acquired such a prestige that many people came to render it an idolatrous reverence. Teachers did not feel called upon to assign any reasons for teaching Latin. Tradition had done its work. After the admission of other subjects to the curriculum, the older subjects, Latin included, had to justify their claim to being continued. In the case of Latin this was not difficult, but in defending Latin many of its advocates have shown a spirit not altogether complimentary to education. If education does what is claimed for it, it frees men's minds from contracted views—from mental myopia. This has hardly been the case with some of the extreme advocates of Latin. The specialist and the expert frequently lose poise when on the witness stand; they attest to too much. Not content with giving good and sufficient reasons for the study of Latin, these experts are so extravagant

in their claims for their favorite subject that some of the appraised values are magnified out of all reason. The purblind advocate of Latin usually makes the fundamental mistake of refusing an equal value to any other subject. With him Latin has no equal as a school subject. Most men of this class are extreme disciples of the doctrine of formal discipline. They insist upon putting discipline above everything else. One of their favorite sayings is, "How we teach a thing is more important than what we teach." If they are consistent, why do they invariably insist on Latin's being that *what*? Are such educational leaders catholic enough to be safe?

Turning from the specialist and the expert to the average teacher, one finds a like homage paid to Latin. Comparatively few of them have made any serious study of educational values, but they are often ready to make the boldest and most positive assertions as to the superiority of Latin. They tell you that for generations Latin held first place in the curriculum, conveniently unmindful of the fact that some of the most valuable subjects in the curriculum have been there less than fifty years. Some of this class justify their advocacy of Latin by riding the much over-worked hobby of the debt that English owes to Latin for so many of its words. These teachers in their recitations in English, history, geography, arithmetic, algebra, and the rest, stop every few sentences to ask for the Latin roots of the words used in these recitations. This is their plan of keeping the value of Latin constantly before the eyes of their pupils and patrons. To this class belongs also the teachers who insist on teaching Latin in order to teach English. They confidently assert that they learned English by learning Latin. Then, what kind of English did they learn, for the two languages are not the same in structure or idiom?

Among teachers there seems to be a wide-spread feeling that unless a teacher offers or consents to teach Latin, he loses caste as a teacher. They are perfectly willing to be known as unprepared to teach physics or chemistry, and even mathematics, but Latin—never. No matter how little they may know of Latin, they must essay to teach it. What pathetic tragedies some of them enact! I would be unwilling to set down here some of the murderous efforts I have seen made.

The popular homage paid to Latin is a matter of some concern. With the educated this homage is natural, justifiable, and

to be expected; with the uneducated it is often difficult to understand. Ignorance is always fanatical in its devotion to anything to which it attaches itself. The Eleusinian Mysteries were revered all the more by the Greek populace because their significance was mysterious. Much homage is paid to Latin by people absolutely ignorant of the language. Many a parent, unable to distinguish a single Latin word from one in Esperanto, insists on having his child taught Latin in some fashion. There are numerous school trustees acting with the same blind devotion to an unknown tongue. One can not well think of anything more pathetic than a school board wholly ignorant of Latin, none too well trained in English, and intrusted with small means for the education of their own children and those of their neighbors, employing at random a teacher to teach these children Latin, when perhaps not a single one of them will ever get beyond the First Book of Caesar's Gallic War. In literally hundreds of little country schools, over-crowded with children and recitations, half-prepared or vain-glorious teachers are giving from one-eighth to one-fourth of their time to drilling Latin into a little group of children who ought to be learning how to read English, to make simple calculations, and to become useful citizens.

Dr. DeGarno says, "The most obvious educational value of the ancient languages is the opportunity they give for the development of language consciousness through the long drill in making grammatical distinctions."

Because Latin is a valuable subject is not evidence that it is the best subject, or even a good subject, for everybody. The intense classicists have done the study of Latin incalculable harm by insisting with the spirit of martinetism that at least every boy in the high school should study it. Every teacher of experience knows that frequently a class of from fifteen to twenty pupils is held back to the point of disgust for the subject by two or three plodding members who will never learn Latin. Prof. Bennett can not be accused of being prejudiced against Latin. Here is what he says on this point:

"At present, however, the danger seems to be not that too few will study Latin, but rather too many. Latin is a difficult subject, and the peculiar educative power it possesses is not capable of being exercised upon all minds,—only upon those of a certain natural endowment. In our intense democracy we are perhaps at times inclined to forget that no constitutional declarations of

civil equality can ever make, or were ever intended to recognize, an intellectual equality between the individual members of the nation. Latin is good for those whose gifts enable them to profit by its study. It is not, however, capable of popular distribution like so much flour or sugar. Because Latin is a highly effective instrument for the training of certain minds, we must not think that the efficiency is contained in the subject *per se*; there must exist in the pupil the mental endowment requisite to profit by Latin; else the time spent upon the study is worse than wasted. Observation convinces me that many parents and pupils labor from a serious misconception on this point, and that many are ambitious to study Latin whom nature has not endowed with the capacity to benefit by its pursuit."

There is no use to attempt to disguise the fact that Latin is to most students a difficult study. It requires intense and sustained effort to get out of Latin the value that is in it. However, the mere fact that it is difficult has nothing whatever to do with its value. Dismiss from your mind any such crotchet as one frequently hears—that Latin is a valuable study because it is difficult. On that ground, Chinese would be far superior to Latin. The value of no subject is dependent upon the ease or the difficulty with which it is mastered. Undoubtedly there is such a thing as mental discipline, but mental discipline and mental gymnastics are not synonymous.

Not a few teachers frankly admit that they have students taking Latin under compulsion because the school has nothing else to offer in lieu of Latin. Is it fair, or just, or even sensible, to compel any student to take any subject simply because it is in the curriculum, or because the school is unable to offer anything in its stead? On the same plane of logic, were a woman to go to a store and ask for gingham, and the merchant had no gingham, she would be expected to take his only substitute—calico.

The teacher should realize that he is teaching Latin, and not English. We do not study Latin in order to learn English, however fondly we may have cherished that delusion. The idioms of the two languages are widely different, and we approach their study in different ways. To be sure, the student of any language will incidentally derive benefit from studying any cognate language. In the two he is constantly discovering similarities, parallels, and contrasts which strengthen him in his linguistic efforts, just as the study of one science aids in the study of a kin-

dred one. But, as has already been pointed out, the grammar of Latin and that of English are radically different.

Unless a teacher knows Latin and something of how to teach it, he is most seriously advised not to undertake it. More students are driven from Latin through the inferior teaching of it than through all other causes combined. Boys and girls with red blood in their veins do not shun Latin, or any other subject, merely because it is difficult. Literally thousands of ambitious students take special delight in the mastery of difficult tasks. All that such students ask or need is confidence in the ability, skill and enthusiasm of their teachers. It is utterly needless to be continually telling your students of the innumerable benefits that have come to thousands who have studied Latin, and of the benefits that may come to them from Latin study. Demonstrate the benefits by your own attainments and by your superior teaching. A teacher has neither the right nor the need to ask his students to take on faith the benefits accruing from his own chosen subject.

BEGINNER'S LATIN.

In schools other than Junior High Schools, teachers are strongly advised against putting Latin into the seventh grade. There are several reasons for not doing so: The seventh grade in the ordinary school is already congested with work: it is better to begin algebra in this grade than Latin; to put Latin into the grade simply compels the pupils to prolong into the high school studies which should be completed in the elementary school. Not only do the pupils enter the high school encumbered with this unfinished elementary work, but they are unable to do the high school work as it should be done. Teach pupils some English before taking up Latin. When Latin is taken up in the high school it should be pursued vigorously every day.

As in most other things, the beginning is the most important thing in teaching Latin. In most cases the degree of success attained during the first eight or ten weeks determines the ultimate success of a pupil or a class. Some of the best Latin teachers do not permit their beginners to make any attempt alone to prepare a lesson for at least two weeks. Pupils use their books only during supervised study periods or on study-recitations. By following this plan, the pupils approach each lesson under the immediate guidance of the teacher, lose no time making blun-

ders and correcting them, and gain confidence in themselves and in their ability to master the work. For a student to feel at the end of a month that he has made actual progress without any loss of time is itself inspiring.

The first difficulty which confronts a beginner in Latin is the new and strange words. He must become acquainted with these words in written form and in oral speech. He must hear these strange words properly pronounced over and over by the teacher. Next he must pronounce them again and again, until he feels no more embarrassment in pronouncing *columba*, *hasta*, *navita*, and others, than he has in pronouncing their English equivalents. Success is the reward of constant drill led by the teacher.

The paragraphs on Syllables, Quantity, and Accent should be mastered at the beginning, and the knowledge of them used constantly. For a class at the end of a year to be unable to separate readily words into their syllables and to accent the proper syllable is a serious reflection on the work of the teacher.

Correct pronunciation in the study of Latin, as in other languages, is a matter of some weight, but the method is not a matter of grave consequence. Only adopt some method and adhere to it. The trouble with most students, and with some teachers, is that they use a hybrid, mongrel, pronunciation. The two most common methods in use are the English and the Roman. The Roman is much the simpler, and has in it much to commend it. The Roman is rapidly displacing the English everywhere. Do not be deterred from using the Roman method by a few cheap witticisms sometimes heard from men who regard all innovations as heresies.

In the first year's work, the business of extreme importance is the mastery of the forms, and nothing less than their mastery can be satisfactory. Until the forms are mastered, the student is helpless. In their hurry to get their students to reading Latin, teachers too frequently neglect this indispensable drill to the undoing of their students and to their own endless annoyance. To do this work successfully requires a fund of patience, and consummate skill in keeping up the interest of the class.

In mastering the forms several things must be kept constantly before the students. Among these are (1) a ready recognition of the stem and the terminations of a word, (2) the English meanings of the word as indicated by the terminations, and (3) the quantity of the vowels in the terminations. "The mere learn-

ing by heart the declension of a word without its English meaning is a waste of time, and proves a stumbling block to future advancement." A student may learn to recite in a parrot-like manner the entire conjugation of *regere*, yet not be able to give instantly the English for *regit*, *reget*, *regat*. He must learn these forms, but the forms without the exact meanings will prove of little service to him.

The next most important business of the first year is the acquirement of a good working vocabulary. "The absolute possession of such a vocabulary is indispensable to the knowledge of any language." The words of the language—their forms and meanings—are the tools without which no work can be done. Without a mastery of forms and a vocabulary, it is impossible to read or to translate Latin. The extent of the vocabulary to be acquired before leaving the beginner's book is a mooted question. Some authorities recommend as few as 500 words, while others recommend as high as 1,500 words. A vocabulary of 1,000 words is far in excess of what most students have on leaving the beginner's book. Were students required to master even 600 words before leaving the beginner's book, our Latin work would be vastly improved.

Perhaps the majority of Latin teachers give too little time to teaching the Beginner's Book. In their hurry to make credits they rush their unprepared pupils into connected reading entirely too soon. The average 1st-year high school class of 20 pupils carrying more than four major subjects can not master the Beginner's Book, with daily recitations of 45 minutes, in less time than 45 weeks. One of the best private preparatory schools in this country gives 45 weeks with 60 minute periods, to the Beginner's Book. Teachers who rush a class carrying five major subjects through the Beginner's Book in 36 weeks, with 40 minute periods, usually do not remain in any particular school long enough for the Caesar and Cicero reading to betray their inferior work in the Beginner's Book.

READING AND TRANSLATING LATIN

1. Remember that reading Latin and translating it are two very distinct processes. One is getting at the thought of the writer in a foreign tongue; the other is turning that thought into good modern English. In getting at the thought the reader metaphrases, that is, uses literal renderings, but the finished

translation should never be literal, unless it is at the same time idiomatic English. Here lies a strong reason for not beginning the study of Latin until the pupil has formed the habit of using fairly good English. To translate *rosa puellae est* "a rose is to the girl," or to render *venerunt qui pacem peterent* "they came who might seek peace" is worse than nonsense; it is vicious. On this point Dr. Charles W. Bain gives this sound advice: "When the translation of connected Latin is begun, nothing but accurate and idiomatic English should be allowed. One of the great advantages from studying Latin consists in the thinking out of how a given passage of Latin may be rendered into idiomatic English, for the methods of thought of the two people are entirely different. It is the thought, and not the words, which is to be translated, and he who renders a Latin thought into good idiomatic English has done good work. The mere slavish rendering of words from one language into another does little, if any, good."

Pupils frequently fall into the bad habit of calling the Latin words one at a time and after each giving simply the English equivalent. *Gallia est omnis divisa in partes tres* is sometimes thus rendered: *Gallia*-Gaul, *est*-is, *omnis*-all, *divisa*-divided, *in*-into, *partes*-parts, *tres*-three. Such renderings are practically worthless, and the pupil is not learning Latin.

Closely akin to slavish literal translations are the slipshod renderings of many Latin words, such as *fides*, *honor*, *religio*, *virtus*, *id*, and others of the same type. The first three of this list do not always mean "faith," "honor" and "religion;" the fourth rarely ever means "virtue;" and "this thing" for the fifth word is meaningless.

2. However, there is another kind of translation that is even worse. It is a prostitution of both the Latin and the English. It consists of a loose, running, sketchy metaphrasing of the Latin into English, with no attempt to put the meaning into idiomatic English. I have heard it in almost hundreds of Latin recitations, some of them conducted by teachers of reputed ability. Time and again I have waited until the close of the recitation, then asked one or more pupils to give me a written translation of what had already been accepted by the teacher. Out of perhaps a hundred of these written translations, here are two specimens:

Caesar's Gallic War, Book I, Chapter 49, reads as follows:

Ubi eum castris se tenere Caesar intellexit, ne diutius com-

meatu prohiberetur, ultra eum locum quo in loco Germani consederant, circiter, passus sexcentos ab his, castris idoneum locum delegit, acieque triplici instructa ad eum locum venit.

The written English translation given me reads:

"There Caesar knew that he should keep him from the camp, lest that for a rather long time he should be prohibited from coming and going, that in either place the Germans hold this place, circle around 600 of paces from these, he should select this same place for the camps, and the triple line of battle being in array, he should come to this place."

Cicero's Second Oration against Catiline, Section II, begins as follows:

Ac si quis est (talis, quales esse omnes oportebat), qui in hoc ipso, in quo exultat et triumphat oratio mea, me vehementer accuset, quod tam capitale hostem non comprehenderim potius quam emisserim, non est ista mea culpa, Quirites, sed temporum. Interfectum esse L. Catilinam et gravissimo supplicio affectum jam pridem oportebat, idque a me et mos majorum et hujus imperi severitas et res publica postulabat.

The written English translation given me reads:

"And if he is of this kind, all ought to be of this kind, which in the same thing, in which my oration exults and triumphs, he accuses me vehemently because the principal enemy * * * rather than send him out, that it is not my fault, but of time. Lucius Catiline ought to have been killed and treated with the greatest punishment a long time ago, both the custom of the older ones, and the severity of this power and the republic this was demanded by me."

It would be difficult to conceive of any exercise more degrading to either the Latin or the English. It is strange how any teacher can accept such work and feel that he is teaching anything. In each of these two cases the teacher was a college graduate. There is no law in South Carolina to require any teacher to be examined as to his ability to teach Latin.

3. Whatever parsing of Latin words and idioms is done, naturally should precede the translation. The translation depends upon the constructions, and should follow the parsing. What is the need of having pupils parse words and idioms after they have been properly translated, unless it is done to detect a *pony*?

FOLLOWING THE BEGINNER'S BOOK.

It is highly desirable that some easy Latin be used in making the transition from the Beginner's Book to Caesar. Any teacher will tell you that a young pupil encounters difficulties, if he goes from the Beginner's Book immediately into Caesar. The long sentences in indirect discourse are especially difficult to him. The difficulty is obviated in a measure by reading Book II prior to reading Book I, but easier reading than even Book II ought to be read first. This plan defers the more difficult passages of indirect discourse, but breaks the continuity of Caesar's narration. However, it is to be feared that many pupils utterly fail to see that there is any continuity in the narration. The *Gradatim, Latina Porta, Viri Romae*, and others furnish an easy approach to Caesar.

Caesar has long been accepted as a standard author, although there is nothing sacred in the writings of the old Roman. High school pupils, especially girls (and they are in the majority), do not care for the dry details of camps, campaigns, sieges, battles, and harangues to soldiers. The average pupil gets absolutely nothing coherent out of the details. Many of the best authorities now recommend the use of Nepos to the exclusion of Caesar. The Latin of Nepos is little easier than that of Caesar, but the matter is of more interest to pupils. Fifteen of the Lives are the equivalent of four books of Caesar.

It can hardly be doubted that many high schools undertake to read more Latin than can be well done. The four units allotted to the Beginner's Book, the first four books of Caesar, the six orations of Cicero, and the six books of Vergil seem to me to be out of proportion to the requirements for other units. I believe this to be one of the reasons for so much inferior work in Latin. Any high school running on 45-minute daily recitation periods, for 36 weeks in the year, is doing well to master the Beginner's Book, the first three books of Caesar, the four orations of Cicero against Catiline, and the first four books of Vergil in four years. Even this quantity can not be well done, if the class carries more than four major subjects at a time.

The vast majority of the colleges complain bitterly about the inferior Latin preparedness which high school pupils carry with them to college. The justice of the complaint is admitted, yet many of these colleges are insisting on the prescribed four books

of Caesar, six orations of Cicero, and six books of Vergil—in-
sisting on quantity instead of quality. Some teachers do more
work in reading two books of Caesar than others do in reading
four. Would it not be better to demand that a school devote
135 60-minute hours to reading standard Latin than to reading
specifically four books of Caesar? Is the college interested in
having a specified number of books in a specified list of authors
read, or in having pupils come to college with a knowledge of
Latin sufficient to carry forward their work with ease and intelli-
gence?

LATIN COMPOSITION.

American teachers no longer aspire to make Latin writers out
of their students. Nevertheless, it is extremely doubtful if any
other exercise is equal to putting English into Latin as a means
of learning the structure of Latin sentences and the force of
Latin words. But the teacher must know Latin before he can
teach the composition.

There are many good manuals made to accompany the Cae-
sar and the Cicero. However, the points stressed in the manual
from day to day may not be the points that need most to be
stressed with a particular class. Therefore, many good teach-
ers prefer bringing their own sentences for illustration and drill.
This plan has in it much to commend it, provided it is done sys-
tematically and regularly.

In a great many schools one recitation period each week is set
aside for Latin composition. This plan insures regularity. A
better plan seems to be that of having two or three sentences put
into Latin at the beginning of every recitation. This insures
regularity, keeps the composition constantly before the minds
of the pupils, and enables the teacher to correlate the reading
and the writing. Whatever plan is followed two things should
be kept in mind—have the composition regularly, and avoid long,
complex sentences.

Helpful books:

Bennett & Bristol's *The Teaching of Greek and Latin*. Long-
mans.

MODERN LANGUAGES.

The term modern languages is usually made to include French,
German and Spanish, with decided emphasis upon the French
and German. In fact, up to this time French and German have

had a monopoly of attention in the high school. Social needs, in a broad sense commercial needs, are beginning to place an emphasis upon Spanish. Commercial needs must not be interpreted to mean the mere knowledge of the language sufficient to carry on commercial enterprises. Commerce has been one of the great civilizing agencies of the world. Therefore, social needs are directly ministered to through commerce. Any two peoples speaking or understanding a common language or each other's language are strongly bound together. Close alliances between peoples necessitate a common medium of communication.

At present German *kultur* is deservedly at a tremendous discount throughout the civilized world. It has proved itself to be not only a blot and a blast upon civilization, but a curse to mankind and a return to savagery unspeakable. Its teachings are so repugnant to the ideals of the American people that everything German is shunned. The study of their language, once somewhat popular in some parts of the United States, has already been dropped from hundreds of schools, and will doubtless be dropped from almost all. However, we might do well not to overlook the fact that there is a notable difference between teaching the German language to children as their everyday speech and making of the language a mere academic study. Long after the German people have been compelled to behave as civilized people their language will be studied by other peoples. Besides, it ought to be borne in mind that it was not the German tongue that brought about the present horrible conditions, but the doctrines and teachings of the German autocracy. It is no very great compliment to American educators and teachers of the German language that for years we used in our schools German textbooks and German literature of an incendiary type without discovering their vileness until after 1914. After all, it may be that we shall find it expedient to study the German language for the same reason that a French statesman assigned when asked why the German language had been recently taught in the schools of France. His reply was, "We taught our children that language in order that they might understand what the infernal scoundrels were up to."

"It is a satisfaction to note that in many respects the study of modern languages has been gaining in dignity in our schools in recent years." One explanation of the delay in giving the proper dignity to the study of these languages has been our inability to

agree upon the aims in teaching them and upon the methods of instruction. The method of instruction depends largely upon the aims in teaching a subject. As to the aims there are too widely divergent views held by teachers. Some teachers insist that we teach modern languages for the disciplinary value that there is in them. While others hold that we teach them for their practical value. Dr. E. S. Joynes, one of the foremost scholars and teachers of the past forty years, thus expresses himself on the aims and methods:

"Coming now to the question of the method of instruction, I present to you the conservative—perhaps old-fashioned—view, that the teaching of modern languages should be on the same lines as of any other language (Latin or English)—that is, *for discipline and culture*—with the single exception, that the *attainment of a correct pronunciation* should be made an indispensable feature. I will add that no one should profess to teach a modern language who does not possess this accomplishment."

"This is not the now popular or perhaps the prevailing view. Under the influence of foreign—that is, native French and German—teachers, in many schools the chief stress is now laid on speaking, with the use of the foreign language in the schoolroom, etc., etc. In this view I do not concur, for our American schools. In Europe, where to speak at least a smattering of two or three languages is important in commercial or social life, such teaching—with the necessary sacrifice of the higher ends of discipline and culture—may be defended. But not so in American schools, under our different and happier conditions. Few of our pupils will need French or German in business, and still fewer, perhaps, may travel abroad in Europe. Even for these the school can teach only the elements of conversation or writing—and for this smattering, the new 'reform' method (so-called) sacrifices, in my opinion, the higher value of the disciplinary and cultural study of the language. The chief aim and effort should be, in my opinion, in French or German as in Latin or English, to secure the highest discipline of language study, with the power *to read, to understand, and to feel* the great masterpieces of literature. The effort to teach *speaking*—impossible in the classroom—should be left, when needed, to private and personal instruction. In this way, modern language becomes a noble and worthy element of true education."

(The two paragraphs just quoted were written in 1907. At first glance it might appear to some that the conditions of 1918 are so far removed from anything conceivable in 1907 as to suggest a revision of Dr. Joynes' views. However, a closer study seems to justify the opinion that if Dr. Joynes' views were tenable in 1907, they are reasonably tenable in 1918.)

Dr. David Snedden maintains an entirely different view as to the aims of modern language study, and consequently of the method of instruction. He says, "In teaching modern languages we must wholly discard the doctrine of formal discipline. As found in current defenses of modern language teaching, it is an unfortunate heritage from the factitious pedagogy of Latin." He continues, "Following the example of teachers of Latin, it has become customary on the part of some teachers of modern languages to express the general conviction that the study of the modern language constitutes a valuable avenue to culture, that it reinforces the ability to use English, that it furnishes valuable mental discipline, and that it leads to a comprehension of the life of other nations, either from the standpoint of its contributions to culture or to vocational need. Now, all of these objects, as commonly expressed, are vague and more or less intangible, and probably have little effect either upon the teaching methods or upon the purposes for which the language is studied. * * * I think there is almost no evidence that a given amount of time spent in the study of a modern language reinforces ability either to comprehend or to express English, in anything like the degree to which an equal or less amount of time given to the proper study of English would contribute. Furthermore, it should be recognized that only a small percentage of those of our pupils who study French or German, or both, ever reach the point of an adequate understanding of the literature of their own tongue, to say nothing of their futile dabbings with that of the other language."

The reader must not hasten to the conclusion that either of these men just quoted intends to discourage, even remotely, the teaching of modern languages in the high school. In fact, Dr. Snedden is the author of the opening sentence in the third paragraph of this chapter. However, both these men do raise an all-important question which every teacher of modern languages should study diligently before putting pupils to study in them.

Returning once more to the delay in giving dignity to modern language study, we do not have far to go to discover a second explanation. I take little risk in saying that of all language teachers in the high school, the average teacher of a modern language carries to his work the least special preparation. I have found that a fair percentage of teachers of French and German in the high schools have had but two years' preparation themselves. And unreasonable as it may sound, I have found two teachers of one year's preparation each attempting to teach French. Poor preparation on the part of the teacher can not give much dignity to the subject he teaches. Teachers are strongly urged not to prostitute a noble school subject by attempting to teach it with inadequate preparation. If we accept as correct what Dr. Joynes says as to the indispensableness of a correct pronunciation in teaching a modern foreign language, we must admit that many unfit teachers are trying to teach.

Many educators are of the opinion that any high school should be content with offering one modern foreign language. It is certain that small high schools should be content with offering but one. Unless a school can offer a full course in science, history, mathematics, and the other staple subjects, to offer more than one modern language is to give undue emphasis to language. The efficiency of a high school is to be measured by the proficiency of its pupils in the languages pursued, and not by the number of languages offered or pursued.

High school principals are advised not to offer a single year of any modern language. Such a course is of exceedingly little value to any except those preparing for college entrance, and even they will derive comparatively little benefit. To offer a single year in a modern language is only another illustration of our fundamental weakness in education—a smattering of many things and a proficiency in none. On the other hand, every high school with adequate teaching force, a competent modern language teacher, and enough pupils to justify it, would do well to offer two years or more of a modern language.

HISTORY.

History has come to be looked upon as something more than "a record of past events." It deals with every phase of the institutional life of man—social, political, religious, intellectual, and industrial; it has to do with the whole sweep of human

achievement and human endeavor. Dr. DeGarmo expresses it thus: "Fundamentally, history is the story of man and all that favors or hinders his progress in well-being—the influences of his environment whether natural or human that have affected him, the responses he has made to the stimuli of his environment, the institutions he has devised to fix and transmit his advances; in short, the whole account of his efforts, mishaps, failures, and successes as a social being."

One of the erroneous conceptions as to the content of history has been to regard the subject as a mere storehouse of facts. The study of history involves the getting at facts, but to study the subject for the sole purpose of gathering an array of bare facts is to err at the very beginning. Facts must be related, classified, and interpreted before they can be of value. Unrelated facts or undigested facts are as useless rubbish as ever burdened a pupil's mind. Certainly a pupil must know the facts before he can understand their meaning, but the significance of the facts is the essential part of the study.

A few people have attempted to reduce history to a science or to a system of philosophy, but such attempts are destined to failure. History moves in the realm of the contingent, that is, it deals with causes and effects which do not follow the invariable order of natural law. History appeals to the judgment; were it otherwise, history study would be an endless chain of cold deductions of logic. In history we can not deduce effects from given causes with apodictic certainty, as in mathematics, but the relations between causes and effects can usually be discerned. There is law running through it all, certainly with its variations and its deflections, but withal law.

Dr. H. E. Bourne holds the study of history in high esteem as a means of cultivating a proper regard for truth. He says, "History, certainly as much as any other object of study, requires an intelligent search for truth, and the historian is obliged to follow after it through a more difficult way than even the scientist, because he must hunt among records which often contain erroneous statements or wilful distortions of what actually occurred. * * * * This constant endeavor to discover truth must result in an increased respect for it, and in an habitual inclination to take some pains to know what it is."

From but one other subject can a student get a clearer view of his duties and obligations toward the State and society at large.

"It is impossible to look for patriotic feeling from one who is ignorant of what his country has stood for in the development of civilization." Before he can love his country intelligently he must understand its institutions and what they stand for. A sharp distinction must be made between a species of patriotic emotionalism and a sincere devotion to his country's ideals and traditions. Besides, history properly taught and properly studied cultivates the spirit of tolerance as does no other subject. The whole history of the human race is the story of the emancipation of man from superstition, and from intellectual, political and personal slavery.

It is exceedingly unfortunate that school histories have been, and are yet, given over so largely to the recital of what may be called the destructive and the barbarous in man. The kettle-drum and trumpet stories do not represent the best that is in man. Relatively too much of written history for children has been confined to the monotonous recital of wars, military campaigns, the opposing views of political schools, the contentions of rival leaders, the rise of political creeds, and the repudiation of mere political doctrines. All of these have a place, to be sure, but they should not be permitted to usurp the time which should be devoted to other matters more vital to young people. The evolution of human society is a question far broader than mere politics, in the usual sense of that term. The sociological and industrial phases of history have come to be the phases of commanding importance. Statecraft itself can not exist apart from these great factors in human society.

In most histories the lion's share of attention and space is given to kings, generals, presidents, and political leaders, apparently unmindful of the fact that the great average men and women have made a good part of the world's history. John Richard Green struck a high key in the preface to his *Short History of the English People*: "If I have said little of the glories of Cressy, it is because I have dwelt much on the wrongs and misery which prompted the verse of Langland and the preaching of Ball. * * * I have set Shakespeare among the heroes of the Elizabethan age, and placed the scientific inquiries of the Royal Society side by side with the victories of the New Model. If some of the conventional figures of military and political history occupy in my pages less than the space usually given them, it is because I have had to find a place for figures little heeded

in common history—the figures of the missionary, the poet, the printer, the merchant, or the philosopher.” The real history of a country has not been written until every agency making for its growth or its retardation has been recognized and given its proper place. No greater mistake could be made than to permit children to think that only the “first families” have made the history of a country.

Some writers of school histories and many teachers of history over-emphasize dates. Of course, dates are important, but there are many dates to which but little value can be attached. In learning dates the student should be shown how to let the less important ones cluster about the more important ones, just as he should let the less important events themselves cluster about the more important ones. The teacher must help the student to understand what lends importance to an event or to a date. History teaching that never gets beyond tables of chronology is on a low plane. The purchase of Louisiana by the United States was a big event. It began an era of territorial expansion on the part of the United States. The event is inseparably associated with the names of Jefferson and Napoleon. Suppose two students were asked for the date of that transaction, and one were to give the date—1803, while the other, unable to give the year, were to answer by giving the circumstances surrounding the purchase and the parts played by both these men; which would have given the better answer with respect to the date? Would the latter have any difficulty in determining the priority between the purchase of Louisiana and the establishment of the United States Bank, in Washington’s administration, though unable to give the year of either?

Dr. Charles McMurry very happily insists upon dealing with the *large units of study* in teaching history. He says, “Large units of study are practical thought-centers around which important and extensive groupings of knowledge can take place. Just as Washington is a center from which governmental influences stretch out in all directions, so a big unit of study is a strategic center from which the mind gets organizing control over knowledge.” Out of the overland trip of the Turner brothers in the winter of 1848 as a starting point, he settles not only California but the whole Western country, opens up the mines of that great stretch of country, and pushes the story up into Alaska.

To do this kind of work successfully requires some organizing power on the part of the teacher. If the teacher does not possess this power, it is doubtful if he would succeed in teaching history with any plan or method. In Stephenson's American History, the State adopted text for South Carolina, Chapter XXIX, the following paragraph topics follow rather closely: The Payment of the Debt, Readjustment of Business, A New Type of Business Man, A New Power, The Centennial Year, The Opening of the West, The West and the Corporations, Labor Troubles, The Government in Business, Favoritism of the Railroads, The Tariff Question Revived, Congress and the Trusts. What is the *large topic* running through all these? To study these smaller topics as isolated affairs and to recite them independently on the recitation is almost wasted time.

Take another example: We know that to the wildernesses of America came thousands of men and women from Europe during the seventeenth century. We wonder why these men and women left their native lands, their own homes, and their kindred to settle in a wilderness. We begin to look for attractions in America. In the twentieth century America attracts people from every quarter of the globe, but it was not so attractive in the earlier years of the seventeenth century. There must have been some repelling force at work in Europe. Let us go to the facts; here are some:

(a) Under Henry VIII great numbers of discharged soldiers found themselves without work, and were compelled to beg. They looked to the monasteries for scanty support; Henry destroyed the monasteries, leaving the beggars without means of support.

(b) In the reign of Edward VI the unenclosed lands of England were seized by the nobles and fenced in for sheep-pastures, and rents rose in many cases tenfold, thus making pauper peasants out of the small farmers.

(c) After the destruction of the Spanish Armada, in the reign of Elizabeth, thousands of idle soldiers were again turned loose in England, and many of them were driven to robbery.

(d) In 1601, England enacted a Poor Law which required all able-bodied men to labor for their own support. Not a few refused to work, and chose what they regarded as an easier way to support themselves, and fear of the gallows did not deter them.

(e) As is frequently the case, many men of comparative wealth had lost their fortunes and wished to rebuild them.

(f) The sixteenth century had aroused a spirit of daring and adventure in the people throughout Europe.

(g) All Europe was chafing more or less under religious oppression.

Putting together all these facts, are we not in a position to interpret their effect upon the settlement of America?

Is it at all difficult for the pupil to see the *large topic* running through these events? In the same manner how interesting and profitable for a class to trace the development of agricultural implements from the rude stone axe and stick plow and wooden flail to the modern traction cultivator and grain harvester. In the highest class, pupils could in the same manner trace the course of absolutism and democracy in government.

To teach history well requires considerable knowledge of the subject, a taste for it, a spirit of tolerance and patience in getting at the truth, and skill in handling a class. All these are qualifications which any teacher may cultivate and ultimately possess. Time and effort will bring success. To carry to the study either indifference or prejudice will be fatal to anything like success. The student will attack the subject in the same spirit the teacher approaches it.

The teacher can not depend upon the textbook to do his teaching for him. The best of textbooks furnish the mere skeleton. Whatever of flesh and blood and life be given the teaching, the teacher himself must furnish. In history the teacher may succeed gloriously or fail ignominiously, almost as he elects to do. In no other high school subject has he a finer opportunity to make the recitation hour count for something large and vital, or to fritter away the time on things trivial and puerile. Should he lend an intelligent enthusiasm and wholesome guidance to the class, and give broad and comprehensive significance to the subject, he may hope for abundant success; should he carry to the subject a lamentable ignorance fortified by prejudice, and a dullness of manner that chills the student, he may look for nothing but failure.

Some parallel reading is necessary to the success of history study in the high school, but care must be exercised in both the kind and the amount required. Students on entering the high school, especially in the eighth school year, are neither mature

enough nor trained enough to do very much profitable parallel reading in history. Whatever parallel reading is assigned should be very definite, and should bear directly upon the matter in hand. Do not be continually lugging in extraneous matter; such a course may indicate that you know a great deal of history, but it also indicates that you do not know much about teaching it. Parallel reading does not mean that the student should be given the same thing to be read over in different places or in different books. The student is seeking additional light on a given point, not repeated light. Some teachers think they are giving parallel reading when they require students to read the same thing from two or three history texts. Such a course may bewilder the student instead of enlightening him, since different texts may approach a given historical question from as many viewpoints.

No very successful history teaching can be done without at least a small reference library and a few good historical maps. The discussion of a suitable reference library is too big to be treated in a little manual like this. Any library to be serviceable must be used freely and intelligently. Pupils must be taught how to use books. Left to roam at will through a library, they get but little. Any pupils of this age are not going to use books dealing with the dry details of military campaigns, dissertations on the science of government, and arguments on abstruse political doctrines—no matter how valuable such books may be to mature students.

Suitable magazines properly used are exceedingly valuable as supplementary work in history teaching. They must be well selected and used with care. More than one-half the so-called parallel reading from magazines is almost time thrown away. Pupils in many instances skim through these periodicals without aim or guidance. They read what tickles their fancy, and get nothing after all. They soon come to look upon their parallel reading as a joke—and they are right. Unless you are sure that you know how to use magazines properly, let them alone.

Good maps in the hands of a competent teacher are of the highest practical value; an incompetent teacher has no use for maps of any kind—he could not use them, if he had them. In most schools the main use of maps seems to be for decorative purposes. Historical maps to be serviceable must show the geography contemporaneous with the history. “Correct modern

maps with ancient names printed on them are not only worthless but misleading." For a high school student to undertake to understand the geography of Columbus' day from a study of a modern map of the world would be as difficult to him as to reconstruct Milton's universe.

Some otherwise good teachers waste valuable time in having pupils laboriously trace outline maps. After such tracing has been religiously done, what have the pupils acquired? Map drawing as an end is a very doubtful acquisition—not much above that of Oliver Wendell Holmes' man who could back his ears. Instead of having pupils spend time drawing or tracing imperfect maps, why not have them study a good map. If a pupil has acquired the data necessary for making or tracing a map, what has he added to his stock of knowledge by tracing it? The map is the teacher's tool rather than the pupil's goal. Let the pupils learn to read maps.

There are a few *don'ts* I would give to history teachers.

(a) Don't make the mistake of requiring elaborate and lengthy notes. Require but few, and let these be of some aid to the pupils. Transcribing material from books and magazines is not note taking.

(b) Whatever other pedagogical sins you may commit, don't lecture to pupils. But if you must lecture, don't ask pupils to take notes of your lectures.

(c) Don't give over the history time to current events that have little or no relation to the history work. Some current events are not worth much. Not a few teachers waste time on current events that are of little value.

(d) Don't permit your pupils to commit the text to memory. Be careful that your manner of conducting the recitation does not invite this error. If you ask only for what the textbook gives, your pupils will soon fall into the habit of beginning every answer with "It says." The pupil who begins every answer with "It says" is getting nothing but "it says."

(e) Don't prostitute history teaching by asking such empty questions as "What can you tell me about (Arnold's Treason, or the Missouri Compromise, or the Tariff)?"

(f) Don't be continually asking for the "turning point" in some war or battle. Such questions suggest a poverty of history material.

(g) Don't ask for all the important battles of a given year, together with the generals on both sides, unless you have no other questions to ask.

(h) Don't begin a recitation with such an aimless question as, "What did you find that interested you?" Such a question comes from only an unthinking teacher.

(i) Don't be provincial in your teaching. Get at least beyond the borders of your own State. Don't waste time challenging the statement that Fulton invented the steamboat by trying to prove that some person in your county really had a steamboat on his father's mill pond several months previous. Leave that kind of thing to the person who has nothing to do but dig in cemeteries.

(j) Don't begin the study of any section of history until the class is familiar with the geography of that country and knows something of the people themselves.

(k) Don't make a reading lesson out of a history recitation. There are times when you can profitably carry on your recitation with open books before the pupils for the purpose of making cross references, but to make a reading lesson of the recitation is absolutely worthless as a history recitation.

THE COURSE IN HISTORY.

Within the past fifteen years much attention has been given throughout the country to the arrangement of the course in history. Four years of history in a 4-year high school has been the most popular plan, and the order has been Greek and Roman history, Medieval and Modern history, English history, and American history. In a 3-year school the order has been Greek and Roman history, English history, and American history. The best high schools of the country have come to regard three years of history in a 4-year school sufficient, and two years enough in a 3-year school.

There are several strong arguments in favor of this plan. In the first place, as has already been pointed out, history easily lends itself to poor teaching. A teacher and a class can skim through a year in history with very little effort and with less profit. Such a school piles up units rapidly without doing much genuine work. In the next place, it is a serious question if one-fourth of the pupil's time can be devoted to history in the face of other demands upon his time. Finally, it is desirable to lighten

the curriculum in the first year of the high school, since Latin is usually taken up in this year, and algebra frequently taken up. There is danger of overloading the pupils in the first year.

Good textbooks suited to the 3-year course in history have already appeared. The new order with the new texts are Ancient history in the second year of the high school. Modern history in the third year, and American history in the fourth year. In a 3-year high school American history would be given in the third year, and either Ancient or Modern history in the second year. The newer type of Modern history gives much more attention to England and Continental Europe than the common type of Medieval and Modern history.

CIVICS.

Civics as an independent subject is a comparatively new one. In teaching the subject we have two aims or purposes: 1. To give the pupil a working knowledge of the mechanism of government; 2. To give him some insight into his obligations as an individual in society.

In a country where manhood suffrage prevails, as in the United States, it is of vital importance that every citizen should have an intelligent knowledge of the workings of the ordinary machinery of government. Thousands of our people reach the age at which they are expected to participate in the privileges and obligations of citizenship in almost total ignorance of governmental affairs. Thousands of citizens are ignorant of such things as the sources of revenue for government support, the channels through which taxes are levied and collected, and the disbursement of revenue. To many of our citizens the constitution of the State and that of the United States are sealed documents.

While an intimate knowledge of the machinery of government is highly desirable, and necessary to intelligent citizenship, there is another phase of civics far more important. Citizens ignorant of their duties and obligations to the State and society can not render their best service. The making of good citizens is the chief function of the public schools. It comes before mental training, vocational training, or anything else. In the history of the world there has never before been a time when the teach-

ing of citizenship, patriotism, if you please, was more important. Heretofore we have depended largely upon singing patriotic songs, floating flags over school houses, and the like, all good enough in their way, to imbue children with patriotic feeling. True patriotism and serviceable citizenship rest upon things more fundamental than mere ceremonies. Citizens must deal with realities. What is the duty of a citizen with respect to his voting—is it a privilege or a duty? What is his duty with respect to supporting the institutions of the government—education, asylums, orphanages, public roads, water works, bridges, fire departments, public health and libraries? What are his duties toward corporations, such as railroads, express companies and telegraph companies? Do they exist as public utilities for the service of the people and as a source of reasonable revenue to their owners, are they monopolies for the sole benefit of their owners, or are they the objects of attack and oppression at the hands of the people? Should such utilities be under private ownership and control, under government ownership and control, or merely under government control? What is the citizen's duty toward honest tax returns and jury duty? Upon such things as these depend the permanency of our government. In the United States the people are the government. Therefore, the people must know these things and be guided by that knowledge, if our government is to be permanent and beneficent. These are far more vital things than the learning if magistrates get fees or stipulated salaries, or learning about the working of the electoral college.

MATHEMATICS

Among the so-called practical subjects of the secondary school mathematics ranks among the highest in the popular mind. For many years the subject has been held in high esteem as a discipline for the young. On this point Dr. DeGarmo comments thus: "The reason is not far to seek, for the world is so constituted that it can not be apprehended without some means for discovering and measuring its quantitative relations. In the early days of reflection, when men began to search for bottom principles in the constitution of things, it was inevitable that they should come to the ideas of number and form as necessary to the very existence of the world, for whatever fills space and time must be subject to geometrical and numerical laws."

Chapter II, pages 9-52, of Young's *The Teaching of Mathematics* is devoted to the Value of the Study of Mathematics. In discussing the facts of mathematics, the author asserts, "There is no subject, except the use of the mother-tongue, which is so intimately connected with everyday life, and so necessary to the successful conduct of affairs. Wherever we turn in these days of iron, steam and electricity, we find that mathematics has been the pioneer and guarantees results."

No one questions the immense value of mathematics as a practical subject, yet it is evident that the average man fails to realize how elementary is the mathematics used or needed by men of even more than moderate education, exclusive of specialists in certain vocations. The subject is frequently overrated as a mere practical subject.

Mathematics as a mode of thought is more valuable than as a practical subject. "Mathematics is a science of necessary conclusions." The conditions given, the conclusions are certain. However, some authorities protest against the over-valuation of mathematics as an exercise in applied logic. One of them remarks: "Among the educated classes we meet everywhere the error that mathematics is chiefly useful in education as applied logic, even if it is limited to a minimum content. This error finds its explanation in a number of circumstances, of which two are of especial importance: first, in the common ignorance of the manifoldness of mental processes, methods, and ideas involved in secondary mathematics, and, second, in the erroneous conception of the notion of formal discipline, which does not perceive that form and content are inseparably united."

Granted that mathematics is erroneously overrated as applied logic, the abstract logic of the subject remains unchallenged, and, although the reasoning may be severe, it is also simple. "Indeed," says a recent writer, "the whole subject rests upon a half-dozen axioms and a few postulates. The solution of the most difficult problem in algebra rests primarily upon the equation and its preservation." Besides, mathematics is progressive; the axioms and principles of arithmetic hold good in all mathematics; algebra takes the principles of arithmetic and generalizes them, then proceeds to widen the circle of reasoning. Abstract logic requires almost no memorizing. The formulas constitute almost the only legitimate field for the memory.

Mathematics develops a certain kind of imagination, as in the study of geometry and architecture, but it should be remembered that the imagination of the mathematician and that of the poet are widely unlike. One is the imagination of reason, the other of feeling.

ARITHMETIC.

Considering the amount of time spent upon arithmetic in American schools, there is no other subject from which we get more barren results. During the first three years of school life it holds a place second only to reading. During the following four years it holds a place second to nothing in point of time or attention. Yet, after seven years of study, with daily recitations, the great majority of pupils have only a vague notion of the meaning of arithmetic and its applications to the common affairs of life about them. They pay an exorbitant price for a meager knowledge of the subject. Something should be done, if possible, to get larger returns from the outlay, or to get the same returns from a smaller outlay.

This is hardly the place to discuss primary teaching, but it seems to me that whatever reform is undertaken must begin in the elementary school and reach up into the high school. A large percentage of our best teaching is found in our elementary schools, yet much of the arithmetic work in them is unsatisfactory. The more I observe pupils and teaching the more I am impressed with the conviction that pupils are set to work in arithmetic too early. Many young children give early evidence of precocity in dealing with numbers, and this precocity and our admiration of it betray us into making grave mistakes. Is it wise to put children to studying arithmetic before they learn to read well enough to interpret the questions easily? Would not time be saved by deferring the beginning of arithmetic at least a year later than is customary?

I would make no appeal for anything like what is called the science of arithmetic to be taught in the elementary school, but there are a few cardinal principles which must be understood, if pupils are to make an intelligent study of the subject. Among these are: 1. The meaning of a unit; 2. The significance of place value; 3. The meaning of a fraction; 4. The constant use of a few of the axioms; 5. The value of the equation and its constant

use; 6. A clear distinction between the *process* and the *operation* in the solution of any problem.

The average sixth grade pupil has a very hazy conception of the meaning of a unit or the significance of place value. As to the former, ascertain his conception of a square foot or a cubic yard as a unit of measurement. As to the latter, ask him to multiply 275 by 34, and to begin by multiplying by the 3 tens. He will likely eye you with some alarm as to your sanity. In decimals ask him to divide 10.56 by 2.3, and to give you the reason for the location of the decimal point. In most cases he will tell you that the quotient has in it as many decimal places as the decimal places in the dividend exceed those in the divisor. He has spent more time in learning an utterly meaningless rule than would have been required to learn the real reason for placing the decimal point.

To many pupils fractions are mysteries long after they have gone over the subject. Give a sixth grade pupil the cost of 4-5 of a pound of sugar and ask him to give you the cost of 7-8 of a pound, and you will very probably find his knowledge of fractions is badly confused. Or, ask him to divide one fraction by another fraction, then listen to his explanation of his work. The work is to him purely mechanical, and he accepts results on faith.

The statement that the whole subject of mathematics rests upon a few axioms has already been made, and doubtless we all agree to it. Nevertheless, how rarely one hears an axiom mentioned in the arithmetic recitation. Have the axioms any more significance in algebra than in arithmetic?

In arriving at the statement of a problem in the shape of an equation the pupil is compelled to see the problem in its entirety. For a pupil to attack any problem before he sees it in its entirety is simply guess-work. The equation is simply the *process* pictured ready to begin the *operation*.

In some quarters there is a strong tendency to drop the study of arithmetic on entering the high school even where the high school begins with the eighth grade. I can not help believing this exceedingly unfortunate. Pupils on leaving the grammar grades are not mature enough to get out of arithmetic what they should. Some teachers contend that a pupil will learn more arithmetic in a few weeks in actual business than he will learn in as many months in school. Perhaps so, but business men are

already complaining that they must do for these youngsters what the teachers are supposed to do for them. Instead of dropping arithmetic on entering the high school, it would be better if we could arrange to give our pupils at least a half year in arithmetic after the second year in the high school, when the pupils are mature enough to appreciate the meaning of the advanced work.

Suggestions.

1. Arithmetic is a branch of an exact science, and has nothing in common with the puzzle page of the newspaper. Do not waste valuable time and prostitute a science by working at mathematical puzzles, and have the courage politely to decline all challenges to do so. You may safely decline all challenges, if you are prepared to solve the legitimate problems that come in your way. The neighborhood arithmetic genius, or the arithmetic crank, may be able to do some marvelous things, but do not permit his genius to disturb your logic. The genius might find some difficulty in teaching some one else to perform his feats.

2. Above everything else your teaching should foster cogent thinking. Teachers and pupils are constantly tempted to take short cuts. Beware how you use them in teaching. Superintendent S. H. Edmunds very happily says: "In arithmetic, short methods should always be the resultant of reason, and as such they may serve a legitimate purpose. But let no one think that a student is, or ever will be, a mathematician who makes this means an end." The schoolmaster's business is not primarily to teach the six per cent. method of reckoning interest, but to teach the principles of percentage applied to reckoning interest. After the student has mastered these principles, he may use short cuts with propriety and profit in actual business.

3. Pupils should be trained to make a sharp distinction between the process and the operation in the solution of a problem. All the logical thinking in the solution of a problem is focused on the process, which consists in seeing clearly and at one view the relations of all the factors in the problem. The operation is solely a matter of making a few simple calculations in the four fundamentals of arithmetic. A student who has been well taught will not undertake any part of the operation until he has passed before his mind the whole process involved, while the

poorly taught student begins by experimenting with the factors given and feeling his way toward an answer.

4. The equation is as important in arithmetic as it is in algebra. In so-called written arithmetic, the written equation is the unmistakable evidence that the student sees all the relations of the factors involved in his problem before he begins his calculations.

5. For logical work, for accurate work, for rapid work—all highly desirable—oral recitations in arithmetic are superior to written recitations. Enough written work is desirable and necessary to keep pupils familiar with the forms of arithmetical expression. Nothing is more conducive to slow and lifeless work than to have all arithmetic work done on blackboards or tablets. What is more dreary and uninteresting than to watch a half-dozen or more pupils, each with a different problem, scrawling their half-digested work on a blackboard? Nobody is doing any alert thinking, and there is nothing to evoke it. This lifeless manner of teaching arithmetic is largely the outgrowth of overworked teachers attempting to conduct more than one recitation at a time, and of incompetent teachers permitting the pupils to teach themselves as best they may.

6. For the teaching of arithmetic orally, the ordinary written arithmetic text is all that is needed. On what logical ground has arithmetic been divided into two kinds? To confine the oral work to the short questions given in the oral text is to defeat in a measure one of the prime objects in all teaching, that of gaining the power to grasp and hold in the mind the relations existing between several factors in a problem. Of course, long and tedious calculations must be reduced to written form, and neatness and accuracy should be rigidly required.

7. Perhaps the chief difficulty any student has in solving his arithmetic problems is due to his inability to read a problem intelligently. Until he can grasp readily the meaning of an English sentence, his interpretation of arithmetic will be uncertain. Often the interpretation of an arithmetic problem turns upon the grammatical construction of the sentence embodying the problem.

8. Once our arithmetics were burdened with useless topics, such as *alligation* and *circulating decimals*, but modern texts have been pruned of most of such topics. However, there is, in the opinion of many practical teachers, need of further prun-

ing. The teacher will find a brief discussion of this subject on pages 219-223 of Young's book already mentioned.

9. Very recently there has arisen in some places a demand for an arithmetic adapted to particular vocations. The laws of arithmetic, as of all other branches of mathematics, are universal and eternal. There seems to be but little argument for a school arithmetic prepared especially for any particular vocation. All that is necessary is to adapt the principles and laws of arithmetic to whatever vocation has need to use them. This is the business of the teacher. The teacher in the midst of an agricultural people has only to adapt the arithmetic to that people in the terms of farm life. The same would be true of the teacher in a mining section, a trucking section, or a manufacturing section. The same principles and laws run through the calculations of the farmer, the merchant, the lawyer, the day laborer and all others. They differ only in their adaptation. The same laws of harmony run through all music, whether it be that produced by the trained choir or by the man behind the plow; the laws of physics are universal, but they may be adapted to build a cantilever bridge or to swing a gate. Concrete work is necessary to all good teaching in arithmetic, and the local surroundings of the school furnish the material for the concrete teaching. The country roads and lanes furnish ample opportunity to apply the teaching of linear measure, the field ditches for the teaching of cubic measure, the fields and gardens for teaching land measure, the field crops for teaching bookkeeping, percentage, and interest. Other opportunities without number are offered in the vicinity of every schoolhouse.

ALGEBRA.

What algebra is and why it is taught are two important questions. Upon the answers to these two questions depend the answers to three others—when to begin the study of algebra, how to teach it, and how long to continue it. The first two questions are discussed rather fully in Chapter VII of Smith's *The Teaching of Elementary Mathematics*.

All agree that algebra embraces the generalizations of arithmetic. The writer just mentioned says that the first of the special functions of algebra is, "To establish more carefully and extend theoretic processes of arithmetic." He gives as the third function, "To develop the equation and to apply it in the solu-

tion of problems of a wide range of interest, including large classes of problems relative to geometry, to physics, and other natural sciences." Indeed, it is difficult to draw the line of demarcation between arithmetic and algebra on the one hand, and between algebra and the higher branches of mathematics and the sciences on the other hand. "The child who meets the expression $2 \times (?) = 8$, in the first grade, has touched the elements of algebra. The student of algebra who is called upon to simplify $(2 + \sqrt{3})(2 - \sqrt{3})$ is facing merely a problem in arithmetic."

Teachers who introduce no algebraic methods in their arithmetic teaching before taking up algebra, then introduce algebra as an entirely new subject, may expect their pupils to meet difficulties. On the other hand, pupils who are taught to use the axioms, the equation, and other algebraic methods in their arithmetic work, not later than the sixth grade, will have no trouble on taking up algebra. Such pupils will readily understand that they are taking up nothing new. In fact, the transition will be so gradual as to be scarcely noticeable. The special teaching points in beginning algebra are to show pupils that they are to generalize specific statements and to introduce symbols in the solution of these statements.

Algebra as a distinct subject is valuable, but there is room for serious doubt if it should be a required subject for all pupils further than to quadratics. There are many pupils who get but little out of the subject beyond this point. Mention has already been made of the meager returns from the long years spent on arithmetic. The results in algebra are open to the same criticism. Many schools spend three years on algebra, and many more spend two and a half years. A total of ten to eleven years on arithmetic and algebra together seems unreasonable. In any event it seems wise to leave off the study of algebra in the high school at or with the Binomial Theorem. Leave Logarithms, Permutations, and the like to the colleges, where they are more serviceable and where they can be better taught.

Suggestions.

1. If possible, avoid taking up algebra and Latin at the same time. Take algebra first. If the arithmetic has been taught as already suggested, there is no reason why algebra should not be begun in the seventh grade. The middle of the seventh grade is an opportune time.

2. Factoring has been felicitously called the multiplication table of algebra. Persistent drill in factoring is absolutely necessary to success. Until pupils reach the point in factoring where they take in at a glance the factors of a quantity, without stopping to think of the type to which it belongs, their work will be slow and uncertain.

3. In dealing with the *minus sign* make it clear to pupils that it has two meanings—that of a symbol of operation, and that of quality. The average high school pupil has little conception of the real meaning of multiplication or division when the minus sign is involved. What has he learned when he is told that quantities with like signs multiplied together give a product with a plus sign, or with unlike signs give a product with a minus sign?

4. Rapid oral work in algebra is just as profitable as in arithmetic. Do not spend five minutes putting on a blackboard what can be just as well done orally in one minute.

5. Do not make the mistake of omitting the solution of problems. This is the most important part of the algebra. Here is where the pupil's powers of insight are tested. If he is not logical in working out the statement of a problem, his knowledge of algebra does not avail him much. The solving of the ordinary examples, or exercises, in the textbook is a mere matter of mechanics.

6. Almost every textbook in algebra clings to at least a few of the antiquated and worthless problems of the hare and hound type. For such problems do not hesitate to substitute others of merit. Mathematical antics are not the goal in algebra study. There are too many practical and valuable problems all about you to waste time on improbable and worthless ones. Problem 42 on page 169 of the State adopted textbook makes one wonder what would be done with a merchant guilty of such a performance as that described in it.

PLANE GEOMETRY.

“Geometry, perhaps more than any other subject of secondary school mathematics, offers opportunity for attaining all the ends of the teaching of mathematics, and hence there is less occasion to regard any one of them as specially the goal of geometry. It gives ample occasion for exact reasoning, for real induction applied to very simple data, for correlation with other work,

with drawing, geography and the physical sciences as well as with algebra, for exercise of the space intuition, for practical applications, for drill in numerical computation, for training to habits of neatness and exactitude, and for the cultivation of the powers of precise thought and expression." Perhaps every successful teacher of geometry would subscribe to this statement of the practical and cultural value of the subject. Over against all this, it is but simple truth to say that geometry may be so ill taught and so ill learned as to disgust the student with all subsequent mathematical study.

Plane geometry in most high schools is assigned to the third year, after two years of algebra. From the nature of geometry in its relation to algebra, it may well be given parallel with algebra in the second year. Many of the best teachers so arrange the course in mathematics. The chief argument against this arrangement is that it prolongs the study of algebra through at least three full years.

Suggestions.

1. See that your class begins geometry in an intelligent way. Do not assign a lesson with a few general remarks, and leave the pupils to learn it as best they can. Teach carefully a few geometrical terms and definitions. Take some very simple proposition; state clearly what is given and equally clearly what is to be proved; with the axioms and the definitions constantly before the class, proceed step by step to build up a demonstration. Be sure that the class fully understands where the beginning point is, and see that it begins there. As the demonstration progresses let each step be set down on the board in full view of the class. Keep this up until the point to be proved is reached, and be sure that the class recognizes the goal when it is reached. At first take nothing for granted. Next, erase the demonstration, re-letter the figure or place it in a different position, and go slowly through the demonstration without writing down anything but what is given and the point to be proved. A very few days of this kind of work will give your class an intelligent start.

2. Designate each line and angle of a figure by a letter or a figure. Do not waste time talking about angle BAC when it can be designated as angle α or angle 2.

3. Have all figures drawn accurately. Nothing could be more absurd than to draw a figure that contradicts the truth to be demonstrated.

4. In drawing a figure to demonstrate a proposition, begin with nothing but what is given in the proposition itself. Let the figure grow as the demonstration proceeds. For instance, if a pupil is asked to bisect a straight line, let him begin his demonstration with that line. Train your pupils from the beginning to build up the figure as they proceed with the demonstration, and to tell the class as they go what they are doing and why they are doing it.

5. Do not send three, four, or a half-dozen pupils to the boards at once and with different propositions to demonstrate. Instead, send one, give him the proposition, and have him demonstrate it and tell the class as he goes what he is doing. This is the only way by which the teacher can ascertain just how the pupil's mind works.

6. As a rule do not waste time writing out demonstrations on boards. Require pupils to stand on their feet and show the class what they are doing. Let them use a pointer and their tongues.

7. The so-called original propositions are worth more than all the demonstrated propositions in the book. Learning the demonstrated propositions is nothing more than reading some one else's work.

8. Do not let a class be satisfied with a single demonstration of a proposition.

9. In most textbooks are a few propositions which approach axioms so nearly as to make demonstrations almost absurd. Be sure that your pupils recognize such.

10. Five books of plane geometry, with at least one-half of the originals, will require every day of 36 weeks with daily recitations of 45 minutes.

Helpful books:

Schultze's *Teaching of Mathematics in Secondary Schools*. Macmillan.

Smith's *Teaching of Geometry*. Ginn.

NATURAL SCIENCE.

Spencer places the study of natural science above that of every other subject. In his enumeration of the benefits emanating from a study of science, he emphasizes these: The pres-

ervation of human life and the enjoyment of human life depend upon a knowledge of science; a knowledge of physiology and anatomy and the laws of health preserves our lives; and in all the industries of men the sciences serve as the bases. Spencer's aims of education are usually regarded as severely utilitarian. This notion is in a measure erroneous. He states very clearly that acquirement of every kind has two values—value as *knowledge* and value as *discipline*. His contention is that science is superior to other subjects as discipline, inasmuch as the student deals with things instead of words. This view is held by many men in no sense partial to the sciences.

President Eliot (*Educational Reform*, 110-111) says: "The last subject for which I claim admission to the magic circle of the liberal arts is natural science. All the subjects which the sixteenth century decided were liberal, and all the subjects which I have heretofore discussed, are studied in books; but natural science is to be studied not in books but in things. The student of languages, letters, philosophy, mathematics, history, or political economy, reads books, or listens to the words of his teacher. The student of natural science scrutinizes, touches, weighs, measures, analyzes, dissects, and watches things. By these exercises his powers of observation and judgment are trained, and he acquires the precious habit of observing the appearances, transformations, and processes of nature. Like the hunter and the artist, he has open eyes and educated judgment in seeing. He is at home in some large tract of nature's domain. Finally, he acquires the scientific method of study in the field, where that method was originally perfected."

In all this there is no attempt to prove the superiority of the sciences over other subjects. All that is desired is to secure merited recognition for them. The fundamental distinctions between the humanities and the natural sciences have been epitomized somewhat as follows: "The humanities deal with causes and effects due in part to subjective or psychic forces, while the natural sciences deal with causes and effects due to mechanic and chemic forces, wholly uninfluenced by man. The mental effect of the study of natural law awakens enthusiasm, discards authority, and trusts to reason in searching for natural law." The alchemist, hunting the elixir of life and attempting to transmute the baser metals into gold, discovered natural law and became a scientist—a chemist. The astrologer, seeking signs in

the heavens for his guidance in affairs earthly, discovered system and natural law and became a scientist—an astronomer.

The sciences offer an exceedingly rich field for the high school. Physiology, biology, physical geography, physics and chemistry are excellent, available subjects. The plant and animal life and the mineral wealth of the country are plentiful in great variety; public health and sanitation have become a national battlecry; our manufacturing industries are rapidly taking first rank in the world; agriculture of all types has taken on a new meaning and importance; and new enterprises calling for the applications of scientific knowledge are being established almost every month.

The high schools of South Carolina are notably weak in their science work. Almost all of them attempt some science work, but there are very few well organized courses in science, and very little equipment has been provided. A still more serious weakness is the small number of teachers really prepared to teach any science. Many of the teachers attempting to teach science had little, if any, thorough preparation themselves in the high school, and took the minimum required science work in their college training. Hence, they have brought to their work a very inadequate preparation to teach any science study successfully. A good percentage of the little science work that is attempted is pursued in neither a scientific manner nor in a scientific spirit.

Dr. Snedden says, "These subjects (physics and chemistry) are distinctly not popular in the modern high school. They are taken in a perfunctory spirit, chiefly by pupils anxious to meet college-entrance requirements in them. The work has become exceedingly formal and unattractive. Many of us are convinced that our high school graduates who have had one or both subjects have had their outlook upon the world of physical phenomena modified only to a very slight extent thereby. It is not apparent that such students possess, as a consequence of their study, any extensive appreciation of what we mean by the scientific method. They are usually quite helpless in endeavoring to interpret applications of physical science to the practical affairs of life. They have dealt so long with applications of a very abstract character, through formal and technical work in the laboratory, that the whole subject seems to have become more or less distasteful, and to be associated with problems that

are unsolved and, to a large extent, incapable of solution." Doubtless many of us are ready to admit the truth in these statements. Does the trouble lie in the nature and content of these subjects, or does it lie in the method of teaching them?

Hundreds of high school pupils are growing into maturity unfamiliar with the most common phenomena about them. Many a student with but little taste or aptitude for any of the humanities has in him a latent or dormant aptitude for reading Nature's book, if he only had the opportunity and the incentive to do so. No greater mistake could be made (and it is repeatedly made) than to brand any student dull or inferior because he does not manifest a taste or an aptitude for the languages or for history. Two students, with equal mental capacity and acumen, may differ widely in their tastes, their individualities, and their dexterities. One might manifest a decided taste and cleverness for Shakespeare, and the other as decided taste and cleverness for Victor Hugo. Would it be reasonable on this basis to adjudge either superior to the other in capacity or acumen?

Among the ardent disciples of formal discipline is often to be observed a rather curious kind of reasoning. The claim is set up that discipline is more valuable than knowledge. Yet, many of those who hold to this view refuse to substitute the study of science for the study of the humanities. In other words, "It matters less what you study than how you study it," but in the end *the what* must be the humanities. The great majority of thinkers are rapidly getting away from this extreme and indefensible view. Educators know by careful tests and observation that there are some otherwise strong students whose mental make-up precludes any hope of their ever becoming proficient in the humanities, and that there are others who can never become proficient in the natural sciences.

In a little manual like this it would be rank presumption to undertake to give anything like specific treatment to the teaching of the various sciences. The best help that can be offered is to point the science teachers to a few helpful books on the teaching of the various high school sciences. I doubt if any one book at present will be found more helpful to the high school teacher of science than Twiss' *Science Teaching* (Macmillan). It is a general guide, or manual, with many points of illustration. In the teaching of physiology, biology, and botany, Lloyd & Bigelow's *The Teaching of Biology* (Longmans) furnishes many val-

uable suggestions. Mann's *The Teaching of Physics* (Macmillan) is another helpful book. In making these suggestions as to books, I have in mind the inexperienced beginner. The well-equipped teacher of experience already has his many books on his chosen subject or subjects.

Suggestions.

Without presumption I hope I may offer a few suggestions to the inexperienced beginner and to a certain type of teacher not wholly a beginner. These suggestions come from some rather strong convictions forced upon me in visiting high school classes in science work.

1. Do not undertake to teach any science in which you have not acquired some proficiency yourself. How can you teach what you do not know? If you do not know a subject, admit it and refuse to compromise yourself. This suggestion is especially applicable to the teaching of biology, recently introduced by the State Board of Education.

2. In determining what science or sciences are to be taught in a given school, select what the school is best equipped to teach and what the teacher is best qualified to teach.

3. The science subjects are usually not pursued long enough to give results at all commensurate with the results in language and history study prolonged through several years. Physiology less than a half-year, with daily recitations, is not worth undertaking. Biology, physical geography, physics, and chemistry should each be given not less than 36 weeks, with daily recitations. The physics and chemistry ought to have six periods a week, making one double period for laboratory work. To run through any one of these subjects in six or seven months, as I have known, is of very little value to pupils. Such work has done much to bring science teaching into merited disrepute. The teacher who does this kind of work either does not know enough of the subject to appreciate it, or has a very inadequate notion of its value. In either case the pupils are getting little of value.

4. The science teacher is expected to teach his subject, and not merely to go through the chapters of a textbook. Mere textbook science teaching ought not to be tolerated. Remember that in science teaching you are dealing with things, not with textbooks, except incidentally.

5. To the student of science there is nothing more vital to his success than the spirit with which he approaches the subject. The student will approach the subject in the same spirit with which his teacher approaches it.

6. The teacher must be interested in investigation and experimentation. These must be fresh. Little inspiration will come from the same set of experiments made year after year. Do not make a set of experiments upon which to draw for all time. If you do, your pupils will come to regard you as a *repeater*.

7. Your science teaching must begin with the experience of your pupils, and not with your experience. Get down to their level, then work them up to yours.

8. The aims of science study may be roughly stated thus: "To become acquainted with facts and phenomena; to organize them through classification; to arrive at demonstrated conclusions."

9. In science teaching there are a few things which pupils must, for a time, accept on faith, because their demonstration lies beyond the possibilities of the high school student. However, teachers must not conclude that they are teaching a thing which the pupils have learned merely from the textbook. When a pupil repeats from his book that certain plants are fertilized by the pollen from the flowers he does not know the statement to be true. He must discover the truth. The bare statement that bees and the wind pollenate plants by carrying the pollen from flower to flower is not science study. The pupil does not know this to be a fact.

10. Twiss in his *Science Teaching* points out one of the most common and vicious types of science teaching—common to present-day textbooks and practiced by many teachers. The method is to state first the general law or principle, such as the kinetic theory of matter, or the wave theory of sound, then advance a few facts in its favor, and none against it, so as to convince the student of its truth *by making it difficult for him to question or deny it*. The teacher and the textbook then give him examples and practical applications or problems which he is expected to solve or explain by using the general law or principle. The author continues: "This exclusively deductive process effectively shuts up the mind, takes the sharp edge off curiosity, and inhibits inductive inquiry at the very beginning."

11. In recent years considerable discussion has gone on over the superiority of the problem method over the project method, and *vice versa*. No matter which you follow, there is an abundance of material close at hand, whether in biology, physics, chemistry, or the other subjects.

12. You must have some apparatus for teaching any of the sciences, but almost hundreds of experiments and projects may be made with very inexpensive equipment. There is almost no limit to what can be done by a resourceful teacher with a dozen glass bottles, as many rubber stoppers, twenty-five feet of glass tubing, ten feet of rubber tubing, and some home-made apparatus.

13. For some of the more important and delicate experiments home-made apparatus is not sufficient. Some experiments are not worth anything, if not made exactly, and pupils ought not to get the impression that anything short of exactness will pass in science study.

14. At present all kinds of apparatus are expensive. However, any sensible school board is willing to purchase at least some necessary apparatus, if you demonstrate the worth of it by your use of it. A laboratory unused is not worth anything, and it is a reflection on the judgment and the resourcefulness of the teacher.

15. In making experiments before your class, have everything ready before the class period. Do not waste time getting ready after the class comes in. Besides, do not let an experiment break down on you. A failure is depressing to your pupils.

16. Do not permit yourself to become discouraged or embarrassed when you hear some specialist in science declare that science teaching has no place in the high school. Your task is to determine just what type of scientific teaching should be done with high school pupils. All of your pupils during their entire lives will be constantly dealing with Nature. Only a very small percentage of them will ever have the opportunity of studying under specialists.

17. The value and the place of *general science* in the high school are yet unsettled questions. Many excellent teachers insist that it serves a double purpose—an introduction to science for pupils going through the high school and on to college, and some insight into the phenomena about them for the pupils who

will not go even through the high school. Other teachers decry the subject as "an *omnium-gatherum* of scraps of all sorts of undigested and unconnected information." The whole question depends largely upon the manner of approach to the subject by the author of the textbook, and the manner in which the topics making up the text are harmonized. If the manner of approach is by induction, it is difficult to see why the subject can not be made profitable as science study. If the topics, that is, the physics, the chemistry, the biology, and so on, are each treated rationally, and all put together harmoniously, it seems rather unwarranted language to call the entire subject scrappy. In even the most elaborate discussions in large volumes, one can not mark off physics from chemistry, or chemistry from biology, or biology from botany.

AGRICULTURE.

Twenty-five years ago "book farmers" and "book farming" were thoroughly ridiculed. About ten years later the farm demonstrator came on the scene, and gave a tremendous impetus to improved methods in farming. Almost immediately there began an urgent, impatient, and feverish demand for teaching agriculture in the schools. Many people seemed to think that all that was necessary to revolutionize farming was to put textbooks in agriculture into the schools. Books were adopted for use in the elementary schools, and teachers innocent of anything resembling preparation were put to teaching agriculture to youngsters barely able to read their textbooks. Failure was inevitable, and it came quickly.

The next step was to put the agriculture into the high school. The same type of textbook was put into the high school. Failure was again inevitable. The third step was the establishment of distinctly agricultural high schools, sometimes called farm schools, and the like. In most of these schools two serious mistakes were made: 1. College agriculture was put down into these secondary schools; 2. The course in agriculture was too nearly divorced from academic work. High school students are no better fitted to deal with college agriculture than with college chemistry, and any course in agriculture to be effective must have a strong academic background. No other people need a broader intellectual training, in addition to vocational training,

than do agricultural people. The mere technique of planting, cultivating and harvesting crops is but part of the successful farmer's equipment. The successful farmer is "a business man on the farm." To quote the late Dr. Seaman Knapp, "Agriculture is not a science, but an art dependent upon a great many sciences."

After wasting a great deal of time, labor and money in unprofitable experimenting, we have begun to make some progress. We have begun to evolve a textbook suited to the high school, and we are beginning to understand that agricultural courses must not be divorced from academic studies. In the meantime the farm demonstrator has lost ground, because the average farmer has overtaken the average demonstrator. The success of agriculture in the high school seems to be predicated upon the following conditions:

1. That the course be given in connection with a good academic curriculum. Not more than one-fourth the daily recitation time should be given to agriculture. The time for practical work is additional.
2. That agricultural courses must consist of both theory and practice. One without the other spells failure. Mere textbook agriculture is all but wasted time.
3. That a course of less than two years is not sufficient. The pupils fail to get out of the course what they should, if it is less than two years, and it is too expensive to employ a competent teacher to teach a one-year course.
4. That agriculture can not be taught by an untrained teacher any more than Latin or mathematics can be taught by an untrained teacher. Because a teacher has been reared on a farm is no evidence that he can teach agriculture. He may be ignorant of the theory. On the other hand, his knowing nothing but the theory does not qualify him to teach the subject. Reading a few government bulletins does not fit a man to teach agriculture.
5. That very few women are fitted to teach agriculture. We do not gather grapes of thorns nor figs of thistles. Neither can we expect women to teach agriculture, simply because they have a knowledge of some textbook on the subject. We should hardly expect a man to be fitted to teach domestic science, simply because he had read a book or two and a few bulletins on the subject.

COURSE IN AGRICULTURE.

The following four-year course was prepared by Prof. Verd Peterson of Clemson College for this manual. I take special pleasure in offering it to the consideration of the teachers of the State.

FIRST YEAR: *Subject material*—Soils and crops. Home projects—Corn, cotton, tobacco, wheat, or any other crop suited to the locality.

SECOND YEAR: *Subject matter*—Animal husbandry. Home projects—Hogs, cows, poultry, or live stock work suited to the community.

THIRD YEAR: *Subject matter*—Horticulture. Home projects—Home orchard, garden, truck crops, suited to locality.

FOURTH YEAR: *Subject matter*—Farm management and farm engineering. No home projects required, since the boys graduate from the school before the work could be completed.

The work of the first and second years and of the third and fourth years may be so alternated that only two years' work will be given in any one year.

The material to be taught in the classroom should be selected to suit the preparation of the pupil for carrying out successfully the home project work selected by a majority of the pupils.

The home project work should be supervised by the teacher of agriculture and graded as the other work of the school.

The subject matter used in the different years can be selected from the different parts of the textbooks already adopted.

Under the Federal Law one double 45-minute period each day is to be given to agriculture in each year of the course.

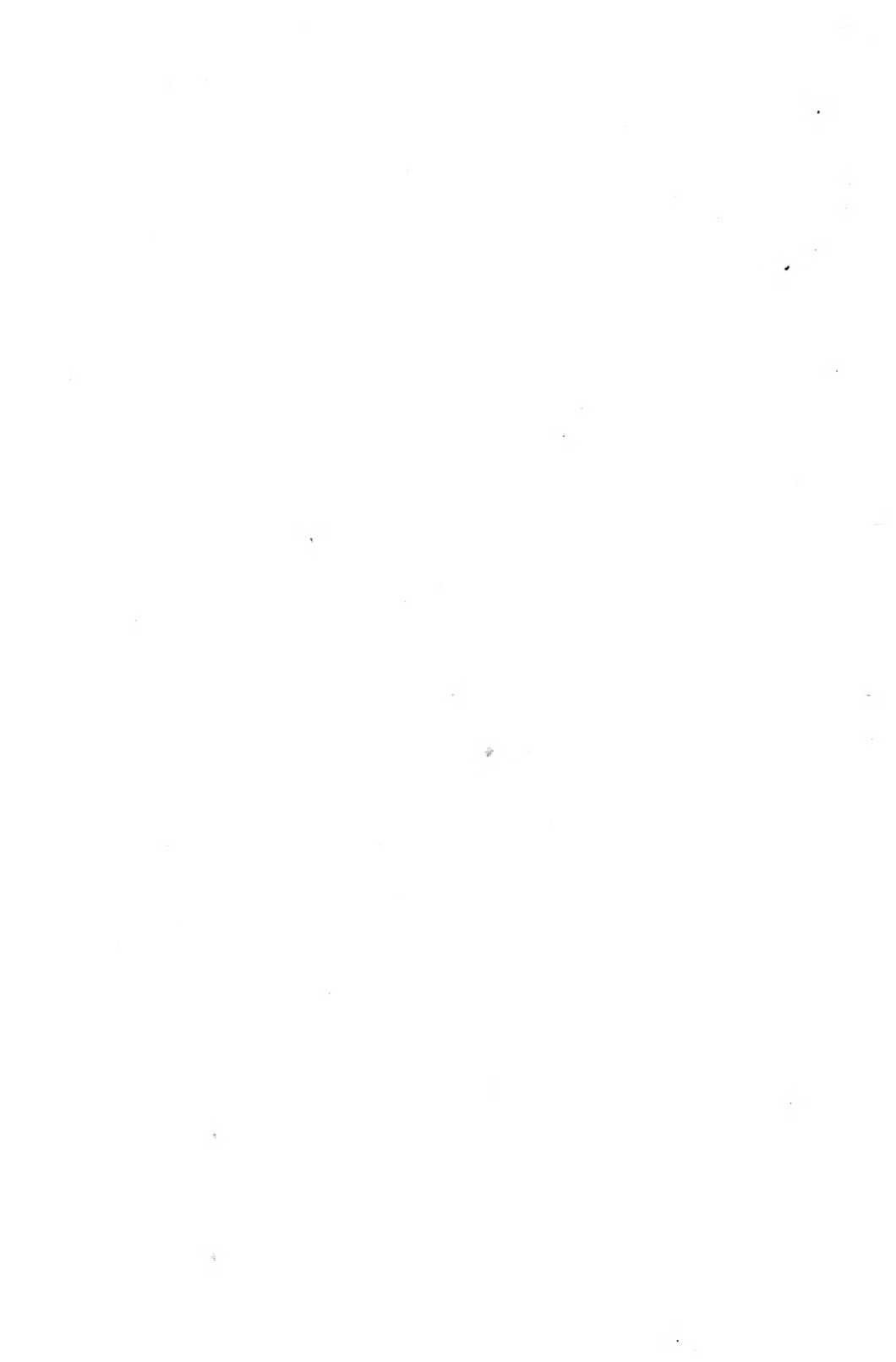
A CONCLUDING WORD.

The teacher of today has much for which to be thankful. The popular mind is everywhere favorable to the teacher's task; institutions of learning of high grade are within easy reach of those ambitious to teach; normal schools and departments of education in colleges and universities give specific training for teaching. Yet, none of these, nor all of them, can make a teacher out of a man or a woman unfitted by nature to become a teacher. Educational literature—handbooks, manuals, outlines, syllabi, magazines, and their like, are written and published in profu-

sion. Almost all of these are helpful, but they alone will not make a teacher. The real teacher is above all these. To be sure, from such agencies the alert and open-minded teacher derives suggestions, gathers inspiration, and catches new visions. The real teacher is the one who reads in order to get the suggestions, the inspiration, and the visions.

During the past twelve years I have come into very intimate contact with more than a thousand high school teachers. The great majority of these teachers are earnest men and women, with their hearts in their work, giving their best to the boys and girls under their charge. Almost without exception these teachers are open-minded and eager to catch any suggestion that commends itself to their judgment. To me it has been an inspiration to watch them in their work and in their growth. My only regret is my inability to give them more encouragement and inspiration than I did. Since the manuscript for this Manual was begun I have been called to another field of service. I shall miss the periodic friendly greetings of these co-workers and much of the stimulus I got from my intercourse with them. However, I shall continue to have for them the same personal interest as in the past .

W. H. HAND.



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